PRIORITY CLIMATE ACTION PLAN

Climate Pollution Reduction Grant

ABSTRACT

A Priority Climate Action Plan to guide decision making and build environmentally friendly infrastructure to significantly reduce GHG emissions on lands federally entrusted to the Iipay Nation of Santa Ysabel.

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- San Diego Gas & Electric
- Ramona Disposal

Community Stakeholders

The Iipay Nation would like to thank the INSY General Council for their valuable assistance in the development of this Priority Climate Action Plan (PCAP).

Definitions

Comprehensive Climate Action Plan (CCAP):
A narrative report that provides an overview of the tribe or territory's significant GHG sources/sinks and sectors, establishes near-term and long-term GHG emission reduction goals, and provides strategies and identifies measures that address the highest priority sectors to help the tribe or territory meet those goals.

Cord(s) of Wood
A standard, full cord of wood is a volume of 128 cubic feet, measured as a pile 8 feet long, 4 feet high and 4 feet wide.

Energy Audits
An assessment of the energy needs and efficiency of a building or buildings.

Environmental Justice
The right to a safe, healthy, productive, and sustainable environment for all, where "environment" is considered in its totality to include the ecological (biological), physical (natural and built), social, political, aesthetic, and economic environments.

Environmental Protection Agency (EPA):
An independent agency of the United States government tasked with environmental protection matters.

Federally Recognized Tribe:
A federally recognized Tribe is any Indian Tribe, Band, Nation, or other organized group or community of Indians recognized as eligible for the services provided to Indians by the Secretary of the Interior, Bureau of Indian Affairs (BIA) because of their status as Indians.

Fee Land:
Territory purchased by Tribes in which the Tribe acquires legal title under specific statutory authority.

General Council
The General Council shall consist of all enrolled members of the Nation age eighteen and older.

Greenhouse Gases (GHG):
Any of various gaseous compounds (such as carbon dioxide, nitrous oxide, or methane) that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect.

Greenhouse Gas (GHG) Inventory:
A list of emission sources and sinks and the associated emissions quantified using standard methods.

Measurable Outcomes
The result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related or programmatic in nature, must be quantitative, and may not necessarily be achievable within an assistance agreement funding period**.**

Priority Climate Action Plan (PCAP):

A narrative report that includes a focused list of near-term, high priority, and implementation-ready measures to reduce GHG pollution and an analysis of estimated GHG emissions reductions.

Performance Measures:

Projects and programs identified to reduce GHG emissions for various environmental sectors.

Stake Holders

A stakeholder is a person, group, or organization with a vested interest or stake in the decision-making and activities of a business, organization, or project.

Traditional Knowledge

Traditional knowledge can be defined as a body of evolving practical knowledge based on observations and personal experience of indigenous residents over an extensive time period. It can be described as information based on the experiences of a people passed down from generation to generation. It includes extensive understanding of environmental interrelationships and can provide a framework for determining how resources are used and shared.

Tribal Community

The Iipay Nation of Santa Ysabel defines the public as all enrolled Tribal members, Tribal Staff, TDC/EDC staff, and dependents of Tribal households.

Tribal Council

The Tribal Council shall be comprised of a Chairperson, Vice Chairperson, Secretary, and four (4) Council Members.

Tribal Greenhouse Gas Inventory Tool (TGIT):

A spreadsheet-based tool developed by the Environmental Protection Agency to help tribes across the county to evaluate their greenhouse gas emissions. The tool has two modules, one for developing a community wide GHG emission inventory and one for developing a Tribal government operations inventory.

Tribal Member

A person who has been enrolled in the Tribe and whose name appears in the Tribal membership roll and who meets the written criteria for membership as outlined in the INSY Constitution.

Trust Land:

Territory, whereby one party agrees to hold title to the property for the benefit of another party. Trust lands held on behalf of individuals are known as allotments.

Weatherize

Weatherize, as a general term, refers to the installation of energy-efficient measures to improve the building envelope, its heating and cooling systems, its electrical system, and electricity and/or fuel consumption.

Abbreviations

CAA	Clean Air Act
CFR	Code of Federal Regulations
CH_4	Methane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CPRG	Climate Pollution Reduction Grant
DEF	Diesel Exhaust Fluid
DOC	Diesel Oxidation Catalyst
DPF	Diesel Particulate Filters
EPA	U.S. Environmental Protection Agency
EV	Electric Vehicle
GHG	Greenhouse Gas
GHGRP	Greenhouse Gas Reporting Program (40 CFR Part 98)
ICR	Information Collection Request
INSY	Iipay Nation of Santa Ysabel
kWh	Kilowatts Per Hour
mmBtu	Metric Million British Thermal Unit
MT	Metric Tons
N_2O	Nitrous Oxide
OAR	EPA Office of Air and Radiation
PM	Project Manager
PO	EPA Project Officer for Grant
POP	Period of Performance
POR	EPA Project Officer's Representative
PWP	Project Work Plan
QA	Quality Assurance
QAM	Quality Assurance Manager
QAMD	Quality Assurance Manager Delegate
QAPP	Quality Assurance Project Plan
QC	Quality Control
SGGEC	Simplified Greenhouse Gas Emissions Calculator
TGIT	Tribal - GHG Inventory Tool (provided by the EPA)
TL	Task Leader
INSY	Iipay Nation of Santa Ysabel

1. Introduction

The Iipay Nation of Santa Ysabel is a federally recognized Tribe and is governed by a constitution, which establishes a government organization structure. There is a General Council that consists of all enrolled members that are eighteen years of age and older. A Tribal Council that consists of the Tribal Chairperson, Vice Chairperson, Tribal Secretary, and four (4) council members two (2) resident council members and two (2) non-resident council members. The Judicial Branch consists of one Judge from the Southern California Tribal Court System.

All inherent sovereign powers of government shall be vested in the General Council. The General Council shall be the supreme governing body of the Iipay Nation. The General Council has delegated to the Tribal Council the legislative power to make laws and appropriate funds in accordance with Article VI and the power to execute the laws and administer funds in accordance with Article V. The General Council has delegated to the Judicial Branch the judicial power to interpret and apply the laws and Constitution of the Nation in accordance with Article VII.

The Santa Ysabel Reservation was established on December 10, 1875 by Executive Orders of President Benjamin Harrison; however, the Iipay Nation has been in existence since time immemorial. The Iipay Nation of Santa Ysabel is a federally recognized Tribe under the United States Department of the Interior, Bureau of Indian Affairs. It is comprised of a land base of 15,546 acres of Tribal Trust Land and located in the remote Volcan Mountains 60 miles northeast of San Diego, California. The reservation lies mainly on the east side of Highway 79, which is the main route to the De Anza Borrego Desert. Another portion of

the reservation lies on the west side of Highway 79. The three tracts of land that comprise the reservation boundaries are identified as Santa Ysabel Reservation Tracts 1, 2, & 3. Although reservation land base is 15,546 acres, only 810 acres have physical improvements or infrastructure. The remaining 14,736 acres are without infrastructure and are either underdeveloped or undeveloped land. The entire 15,546 acres is Tribal Trust Land under the Trustee of the Bureau of Indian Affairs. The BIA Area Office is located in Sacramento, California, and the BIA Agency is in Riverside, California.

The reservation contains a wide range of valued physical resources, including forest, woodlands, and water resources. Recreation includes small game hunting and uses of wilderness/primitive areas. Developed resources of value include 152 housing units, 9 Tribally Owned Buildings, Fire Station, FEMA building, IHC Health Clinic, 6 Pumphouses/Water Treatment Plants, 1 Mini-Mart, and a Cultivation Facility. Cultural and traditional resources round out the significant wealth of the Iipay Nation of Santa Ysabel. The population of our tribe is 1,000 + members; two hundred and six (206) members are children and youth between the ages of newborn and 18 years of age, six hundred and sixty-two (662) are over eighteen, and one hundred and forty-seven (147) are elders over 60 years of age. Most of the residents are concentrated on Tract 3. Approximately 80% of on-reservation households are economically disadvantaged, falling within the very low, low, and moderate-income limits as set forth by the Federal Anti-Poverty Income Guidelines of April 2021. Our Tribe is an active member of a local Health Consortium, Indian Health Council, Inc. where a majority of our Tribal members receive health services.

In 2019, a board of seven elected Tribal members conducted a needs assessment from the General Council and Reservation stakeholders to develop The Tribal Community Plan. In Chapter 3 - 4.3 the plan included the exploration of renewable energy options and forest sequestration to reduce GHG emissions. Future expansion included infrastructure and housing. Examples include fuels reduction, canopy clearance, watershed cleanup, solar access, and wind orientation.

1.1 CPRG overview

Through the CPRG program, U.S. EPA seeks to support the development of climate action plans to reduce greenhouse gases (GHGs), address environmental justice concerns, and support a resilient economy through economic growth and workforce development. In the funding announcement, the CPRG program is divided into phase one planning and phase two implementation.

Under the planning phase, grantees are required to develop a Priority Climate Action Plan (PCAP) and a Comprehensive Climate Action Plan (CCAP) to serve as guiding documents for phase two implementation projects. In phase one planning, the INSY will identify, evaluate, and utilize existing data resources to develop a Tribal inventory of the major sources of GHG emissions within Santa Ysabel Reservation (SYR) and use that inventory data to develop GHG reduction measures. Under the Implementation phase, grantees will implement reduction measures outlined in their own or their respective state's PCAP.

For the purpose of the PCAP, INSY chose not to include buildings owned and operated by Tribal Development Corporation (TDC) or Indian Health Council (IHC).

1.2 PCAP Overview and Definitions

The Priority Climate Action Plan (PCAP) is a narrative report that includes a focused list of near-term, high-priority, implementation ready measures to reduce GHG pollution and an analysis of GHG emissions reductions that would be achieved through implementation. The PCAP initial plan will focus on specific sectors and do not need to comprehensively address all of the tribe's or territory's sources of GHG emissions and sinks.

The GHG inventory was completed by INSY staff due to the Tribe not receiving sufficient bids from 3rd party companies to conduct the Preliminary GHG Inventory. Quantified priority GHG reduction measures were then selected based on the severity of GHG emitters and the needs of the Tribal community. While scientific data on co-pollutants will not be used in conducting a benefits analysis, INSY Staff chose to use a broader assessment of benefits to include environmental justice, environmental benefits, and economic and health benefits.

1.3 Approach to Developing the PCAP

This section describes the INSY's approach to developing the PCAP which includes, but is not limited to the following:

- Identifying and engaging key stakeholders – The Tribe had minimal involvement with community stakeholders in the development of this PCAP. Due to limited community meetings, INSY staff relied heavily on previous engagement completed during the development of INSY Community Master Plan.
- Understanding the GHG emissions inventory - The GHG Inventory represents calculated emissions from commercial, government, and various facilities on the

Santa Ysabel Reservation across 6 different emission sources. The Simplified Greenhouse Gas Emissions Calculator (SGGEC) was used to calculate emissions. Because the SGGEC reports CO_2 in kg and CH_4 and N_2O in grams, the EPA GHG Equivalency Calculator was used to convert all measurements into CO_2 equivalency (CO_2e) values when needed to communicate broad data emissions.

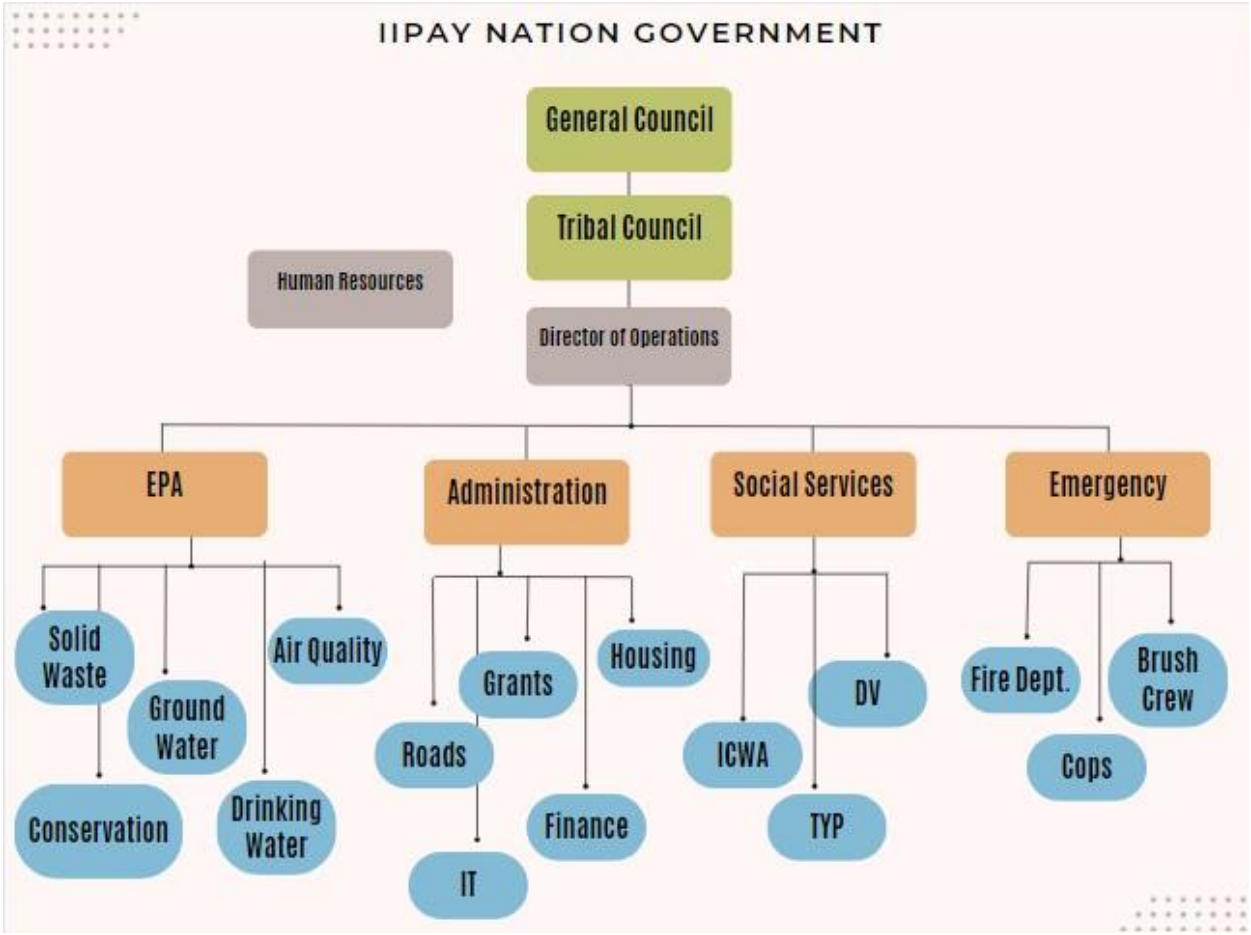
- Identifying measures to reduce GHG emissions – Measures were identified in collaboration between existing community engagement and plans already developed by the INSY. The INSY has been planning for and responding to climate change for the past several years. During this time the Tribe has developed the Tribal Hazard Mitigation Plan (THMP) in 2021, an updated EPA Tribal Environmental Plan (ETEP) in 2023, and a Community Master Plan in 2019. Each of these plans identified vulnerabilities across the reservation accompanied with suggested implementation actions.
- Prioritizing and selecting GHG reduction measures - Measures were prioritized using a multifaceted approach. Measures were first evaluated by INSY Staff to determine the feasibility of implementing the project across the entire reservation with current conditions. Measures that were deemed feasible were then evaluated based on the cost effectiveness vs the amount of GHG reduced. Measures that reduced sufficient GHG's for the cost of the implementation were selected with the highest priority.

1.4 Scope of the PCAP

The Territory of the Nation shall be comprised of all lands within the exterior boundaries of the Reservation including Tract One, Tract Two, and Tract Three, all lands held in trust by the United States for the benefit of the Nation or the People, and any additional lands acquired by the Nation. The lands within the Territory shall include all water, property, airspace, surface, subsurface, natural resources, and any interests therein, notwithstanding the issuance of

any patent or right-of-way in fee or otherwise, held by the governments of the United States or the Nation, existing or in the future.

Decision making for the Tribe is determined by several key factors such as, scientific data, Traditional Knowledge, Customs and Traditions, special considerations, staff recommendations and Tribal approval. The decision-making process starts with pertinent staff collecting all relevant scientific data and speaking with traditional knowledge holders. Staff then translates the data into a presentation for senior leadership to determine the best course of action and make recommendations to Tribal Council. Tribal Council will then provide feedback or approve staff recommendations for implementation.



2. Tribal/Territorial Organization and Considerations

2.1 The Tribal/Territorial PCAP Management and Development Team

- Tribal Council – consists of the Tribal Chairperson, Vice Chairperson, Tribal Secretary, and four (4) Council Members, two (2) Resident Council Members and two (2) Non-Resident Council Members. The Tribal Council has the legislative power to make laws and appropriate funds in accordance with Article VI and the power to execute the laws and administer funds in accordance with Article V. The Tribal Chairperson serves as the primary signatory and spokesperson for the Tribe.
- Director of Operations (DO)– has direct oversite of Tribal Administration and daily operations. Under the DO, there are several departments including Finance, Grants, I.T., Enrollment, EPA, Emergency Readiness, Social Services, Domestic Violence, Roads, Facility Maintenance, Tribal Youth, and Tribal Police. The various department heads assist in the development of grant applications, Tribal ordinances, and oversight of scopes of work.
- Environmental Department – consists of an Environmental Director (ED), Environmental Assistant (EA), Water Quality Technician (WQT), Environmental Technician (ET), and two Water Operators. The ED and ET were detrimental in the development of this PCAP. The ED served as the INSY Project Manager (PM) and was responsible for providing senior level oversite. As the PM, the ED is also responsible for, INSY's technical and financial performance, procuring a 3rd party consulting firm, as well as maintaining communications with the EPA to ensure mutual understanding of grant requirements, EPA expectations, and conformity with EPA quality procedures; managing oversight and conduct of project activities including allocation of resources to specific tasks. The ET was responsible for the collection and calculation of GHG's across the reservation. Additionally, the ET was also responsible for analyzing the data and assisting in the development of reduction measures.

- Grants – consists of a Grants Manager and an internal Grants Specialist. This department was responsible for ensuring that all components of this PCAP are compliant with grant guidelines and all applicable Tribal and federal laws.
- Roads – consists of a Roads Supervisor and two Heavy Equipment Operators. The Roads Department provided valuable information regarding the Tribe's heavy machinery and daily equipment operations.
- Housing – consists of a Housing Director. The Housing Director was an important resource when analyzing the community sector of the GHG Inventory. The information on hand gave us valuable insight into the number of households on reservation, types of energy and fuel used, backup generators as well as future housing development.

2.2 Special Considerations for Tribal/Territorial Entities

Since 2022, the INSY has added an additional 13 housing sites across reservation tracts 1, 2 and 3 bringing the total number of inhabited housing sites to 152. Every year, additional housing sites are proposed and added based on available funds and Tribal member needs in accordance with the Tribes governing policies. There are multiple recreational areas along Highway 79 identified for current and future recreation including one (1) softball/baseball, one (1) playground, one (1) traditional gathering area, and a community picnic area. Currently, the INSY is developing community buildings that will house a community kitchen, meeting area, and dialysis center. Future development plans include a complete overhaul of the traditional gathering area, expanding the community gardens, and building an outdoor basketball court.

The Iipay Nation of Santa Ysabel is heavily impacted by prolonged power outages each year resulting in the need for the Tribe and Santa Ysabel residents to run generators for the sustainability of Tribal Operations and to maintain necessities such as the ability to store and prepare food, medicine, and general quality of life. While the Tribe is looking to reduce or eliminate this emitter, the Tribe will maintain emergency generators as an alternate backup to solar and battery packs.

Santa Ysabel Reservation residents rely on wood burning stoves and fireplaces to provide heat during the winter months. While fireplaces and wood burning stoves have high carbon footprints, the only other alternative is electric heaters. However, many Tribal residents are identified as low income. The Tribe has determined that the only viable solution is to replace non-EPA compliant wood stoves and all fireplaces with EPA Certified appliances.

2.3 Collaborations

- US Environmental Protection Agency
  - Project Officer- Served as the main point of contact for any questions or communications related to the work being done under the project including programmatic progress reports and project revisions.
  - QA/QC Officer – The QA/QC office at the US EPA assisted in the approval of the Tribes CPRG QAPP. The CPRG QAPP describes in detail the necessary QA and QC requirements and technical activities that were implemented to ensure the baseline GHG inventory and the sector-specific emissions reduction options were reliable for the PCAP.
  - Grants Specialist – Serves as the main point of contact for any questions or communications of an administrative nature, which may include questions about EPA forms, project budget, or administrative reports.

- Partnering Agencies
  - Native Energy Resources Counsel, LLC
  - K.R. Saline & Associates, PLC
  - San Diego Gas & Electric
  - Ramona Disposal

- Community Stakeholders
  - Community Planning Committee - a board comprised of seven Tribal members conducted a needs assessment from the General Council and Reservation stakeholders to develop The Tribal Community Plan. In Chapter 3 - 4.3 the plan included the exploration of renewable energy and forest sequestration to reduce GHG emissions. Future expansion including infrastructure and housing were included. Some examples include fuels reduction, canopy clearance, watershed cleanup, solar access, and wind orientation.

3. PCAP elements

Data collected from 2023 was used to establish a baseline GHG inventory report. Both direct and indirect anthropogenic emissions were collected to assess all scopes. The EPA Local Action Framework was used to develop data collection methods and create the INSY GHG Inventory report. To generate the GHG emissions inventory INSY EPA collected data from stationary combustion, on-road and non-road mobile emissions, and facility emission reports for electricity use and waste management. We tried to use the Tribal Greenhouse Gas Inventory modules; however, factors like wood burning as a primary source of heat and heavy-equipment data were less uniform, so the EPA SGGEC was used instead to report emissions across all scopes.

Data collection was completed by the INSY EPA staff. Cumulative data for Tribal government operations was complete for propane and electric use through billing statements and vehicle fuel use from mileage logbooks. Future data collection could benefit from building site-specific operational use records. The community comprehensive data was not readily available at the time of the PCAP due to limited community engagement. Sample sizes were taken from Tribal members willing to share data and average estimates were made. Waste management data was mixed for residential and government and is given its own sector titled mixed. The baseline GHG inventory report is organized by scope emissions and sector emissions data. Scope 1 refers to emissions generated within the INSY geographic boundary, scope 2 refers to electricity purchased through San Diego Gas and Electric (SDG&E), scope 3 refers to emissions generated through employee commute, business travel, and waste management. Sectors are separated by residential, government, and mixed. The INSY EPA requested 2023 data for the following areas.

- Tribal number of homes on the reservation
- Population
- Inventory of tribal government buildings
- Sources of stationary combustion
- Government and community propane use
- Government business travel
- Gasoline and diesel use for backup generators
- Tribal government vehicle fleet mileage and fuel purchased
- Non-mobile use of equipment by the brush crew
- Non-mobile use of equipment by the roads crew
- Electricity use consumption for Tribal operations

- Average electricity consumption for residential homes
- Community waste management tonnage reports
- Residential stationary combustion
- Tribal government employee commute and vehicle type

3.1 Greenhouse Gas (GHG) Inventory

Coordination across multiple internal entities and outside servicing agencies such as SDG&E and Ramona Disposal required problem solving and multiple fact checking steps to provide the most accurate data available. SGGEC was used to calculate most emissions. The SGGEC reports CO_2 in kg and CH_4 and N_2O in grams, therefore the EPA GHG Equivalency Calculator was used to convert all measurements into CO_2 equivalency (CO_2e) values when needed to communicate broad data emissions (See Table 3). CO_2e values were calculated by sector to evaluate the greatest areas of need for mitigation measures.

It was found that electricity usage and residential stationary combustion of wood and propane were the two highest contributors to GHG emissions. Though wood burning is part of a natural process, mitigation efforts to increase efficiency of total use is considered a priority. Solid waste is also an area of concern, even though it is one of our lowest emission sources, because there are no current recycling systems at the INSY Transfer Station. The community will benefit from having upgraded waste disposal facilities to include recycling systems.

Table 3- CO_2e Emissions by Sector

Sector	Propane	Wood	On-road	Non-road	Electricity	Solid Waste	Total
Residential	253	1893	202		360	-	2708
Government	10	-	23	82	278	-	393
Mixed	-	-	-	-	-	80	80
Total	263	1893	225	82	638	80	3181

3.1.1 Mobile Source Emissions

To estimate GHG emissions for mobile sources INSY collected information from both on-road and non-road equipment for both gasoline and diesel engines. The INSY fleet vehicles were calculated by collecting mileage traveled in mileage logbooks and maintenance records. Residential vehicles were calculated by average type of vehicle and mileage per household. Residential vehicle records were limited, so it was assumed

152 households on average had 1.5 vehicles. Due to road conditions on the reservation, most cars are a mix of light duty trucks and passenger vehicles. These numbers may be underreported due to residents owning non-road and on-road equipment, both diesel and gas, are unknown values. Government non-road equipment was calculated by average hours run per year.

Residential and commercial emission were calculated separately (See Table 4). The combined data for on and non-road gasoline combustion indicates a generation of 300,286Kg of CO_2, 23,249g of CH_4, and 23,769g of N_2O emissions. The total CO_2e emissions for all mobile sources were 307 metric tons.

Table 4- Government and Residential Mobile Sources (Scope 1)

	CO_2 (kg)	**CH_4 (g)**	**N_2O (g)**
Residential	197,831	9,371	15,436
Government Gas	39,642	7,728	2595
Government Diesel	62,577	6,149	5734
Total INSY Mobile Emissions	**300,286**	**23,249**	**23,769**
Total CO2 Equivalent Emissions (metric tons)			**307**

3.1.2 Stationary Combustion

INSY stationary combustion includes propane use on-site in residential and commercial buildings and wood burning in residential homes for heating and cooking. Usage data was aggregated from both Allstate and KAMPS services for residential and department buildings for 2023. The SGGEC was used to calculate CO_2e emissions from the burning of propane gas and solid wood throughout the INSY community. Limited data was available for residential use of wood burning appliances, an average was calculated based on Tribal members willing to share their data. Residents use on average 3 cords of wood per year totaling 1,140 short tons of wood per 152 residential homes. Propane usage from INSY commercial facilities were 1,857 gallons and residential units average 45,600 gallons per year. The EPA Emissions Factor for Greenhouse Gas Inventories was used to convert gallons to mmBtu units (mmbtu= 1857g x 0.09) for a total of 4,265 mmBtu across both residential and commercial operations. Emissions are broken down into commercial and residential sectors (See Table 5). CO_2e emissions are 288 metric tons with Biomass CO_2e emissions at 1,893 metric tons. 87% of GHG gas emissions result from wood burning within the INSY reservation boundary lines. Wood biomass is listed separately because living trees capture close to the same amount of CO_2 emitted through burning resulting in a comparable tradeoff. However, the burning of wood can contribute to harmful levels of particulate matter and carbon monoxide in the home.

Residential use of propane is the third highest emissions source without wood burning included.

Table 5 Government & Community Stationary Combustion GHG Emissions (Scope 1)

Fuel Type	**CO_2 (kg)**	**CH_4 (g)**	**N_2O (g)**
Propane Government	10,448	510	102
Propane Residential	251,673	12,285	2,458
Propane Gas Total	**262,121**	**12,795**	**2,560**
Wood & Wood Residuals	1,869,600	143,640	71,820
Total Emissions for all Fuels	**2,131,721**	**156,435**	**74,380**
Total CO_2e Emissions Metric Tons			**288**
Total Biomass CO_2e Emissions Metric Tons			**1,893**

3.1.3 Electricity Usage

Electricity calculations were compiled through combined SDG&E billing statements for commercial buildings. An average of 16 Tribal household annual usage records were used to generate approximate community usage per 152 households. These averages had to be used due to limited availability to household billing statements. Households on average used 9,801 kWh which was multiplied by 152 to represent total annual usage within the homes (See Table 6). K.R. Saline & Associates were contracted to assist in compiling this data. Subregion eGRID2021, January 2023 emission factors for CAMX (WECC California) were used for total outputs. Electric consumption was 2,640,179 kWh where 1,489,904 kWh was used by residential and 1,150,275 kWh by commercial operations. Reported lbs. were converted to grams for the final GHG data reporting to stay consistent with other areas of this report. Residential kWh accounted for 56% and government 44% of all electric consumption. However, residential numbers may be under reported per this PCAP. According to calculations on the TGIT, location-based emissions are 8.92 per capita for INSY (MT / CO_{2e} person).

Table 6 INSY Indirect Electric GHG Emissions by kWh (Scope 2)

	kWh Used	**CO_2(kg)**	**CH_4 (g)**	**N_2O (g)**
Residential	1,489,904	359,328	20,950	2,703
Commercial	1,150,275	277,418	16,174	2,087
TOTAL	2,640,179	636,745	37,125	4,790
CO2 Equivalent Emissions (metric tons) Location-Based Electricity Emissions				**639**

3.1.4 AC / Refrigerants and Fire Suppression

An inventory list was collected on existing pre-charged equipment. The screening method was used in the SGGEC. However, no units were filled by INSY in the baseline year, so emissions are 0 for 2023.

3.1.5 Employee Commute

Employee mileage commute data and car type were self-reported by INSY employees. The EPA SGGEC was used to generate CO_2e emissions (See Table 9). A CO_2e emissions value of 68 metric tons was calculated from 67,553 kg of CO_2, 1,759 g of CH_4, and 1,558 g of N_2O.

Table 9 Employee Commuting GHG Emissions (Scope 3)

Transportation Type	**CO_2 (kg)**	**CH_4 (g)**	**N_2O (g)**
Passenger Cars	53404.686	1364.976	1194.3540
Light Duty Truck	14148.232	393.848	363.5520
Total GHG	**67,553**	**1,759**	**1,558**
Total CO2 Equivalent Emissions (metric tons) - Commuting			**68**

3.1.6 Waste Emissions

Annual waste data was collected from Ramona Disposal Service facility in the form of 2023 tonnage reports (See Table 7). Community members currently take trash to a transfer bin where all waste is combined and then taken off site to an external landfill. The total tonnage for 2023 was 154 short tons resulting in 80,215kg of CO_{2e}. INSY total CO_2e emissions are 80 CO_2e metric tons. Historically, the area available for Tribal members to dispose of their solid waste has only offered a single waste bin. Recycling is not a common practice and has not been encouraged by a separate waste system on site. Due to these methods no waste is diverted from a landfill.

Table 7 INSY Waste Emissions (Scope 3)

	CO2e (kg)	**Tonnage**	
Landfilled	80215.2	154.0000	
Total CO_2 Equivalent Emissions (metric tons)			**80**

3.1.7 Business Travel

Data was collected from all INSY departments on business travel events. The SGGEC was used to generate a CO_2e estimate for flight and vehicle miles traveled to offsite training

(See Table 8). A CO_2e emissions value of 3.4 is generated from 3415kg of CO_2. A total of 42g of CH_4 and 97g of N_2O were generated from INSY business traveling.

Table 8 Business Travel GHG Emissions for 2023 (Scope 3)

Transportation Type	**CO_2 (kg)**	**CH_4 (g)**	**N_2O (g)**
Passenger Car	1215	31	27
Air Short Haul <300 miles	108	3	3
Air Medium Haul >= 300 miles, <2300 miles	293	1	9
Air Long Haul >=2300 miles	1800	7	57
TOTAL	**3415**	**42**	**97**
Total CO_2 Equivalent Emissions (metric tons)			**3**

3.2 GHG Reduction Measures

The INSY identified six (6) priority measures to reduce their GHG emissions for PCAP.

Table 10 *Measures by Source*

Focus Source	Measure
Electricity	Weatherization of homes & energy efficient new builds
	Installation of renewable energy equipment
	Provide alternative heating options in Tribal homes
Waste Management	Solid waste management
Transportation	Decrease GHG mobile emissions
Environmental Mitigation	Increase carbon sequestration

3.2.1 Measure 1: Weatherization of Homes

INSY electricity consumption is affected by the infrastructure of existing buildings either being old and in need of repair or structurally inefficient to insulate from outside fluctuating temperatures. This measure will use funding to complete three areas of energy consumption by addressing the need to weatherize homes.

- Energy audits on homes and government buildings for weatherization improvements will be done. Improvements to existing structures will address doors, windows, insulation, and roofing repairs. Housing work orders will be prioritized by homes with the greatest need and consideration to our elders in the community.
- Workforce creation, training, and competitive wages for Tribal Members, contractors, and Tribal employees.
- Increasing community energy use awareness will be addressed to help residents decrease monthly energy costs. Pre and post surveys on current mindsets will be

used to evaluate areas of growth. Annual outreach events will be scheduled and implemented to help the community understand the services being offered and the benefits of weatherizing homes.

The assessment of weatherization to homes works with Measure 2 to assess the homes capability of solar installation, if the Tribal member wants that service as well. INSY has consolidated existing energy data and conducted a feasibly study for applicable strategic plans in conjunction with Native Energy Resources Counsel, LLC and K.R. Saline & Associates, PLC. Residential energy data was limited due to the number of residents willing to share the electric consumption. Future data collection could benefit from a larger sample size and can be collected when weatherization household energy audits are completed for repairs to be done. Funds for this measure will be allocated to support staff in conducting energy audits in homes, supplies, and labor costs needed to weatherize homes and update heating sources. This measure also works with measure 3 to address heating source upgrades. These needs will be included as an upgrade needed within the energy audits. Future new buildings will be required to provide energy efficiency for long-term use. According to the US Department of Energy, windows are responsible for ~ 27% of energy use and fully weatherizing homes with doors, windows and insulation upgrades can reduce energy consumption. An offset of CO_2 e by one (1) metric ton per household is estimated (See Table 11). If each household uses ~ 9801kWh a savings of 2,646kWh can be saved. Average annual residential electric bills are $3,882. With weatherization customers could save $1,048 annually per home.

Table 11 *Measure 1 Details*

Measure 1: Weatherization of homes & energy efficient new builds		
SCOPE 2 This Measure will address insulation and upgrades to Tribal structures, while increasing community awareness about energy consumption.	Implementing Agency	Iipay Nation of Santa Ysabel EPA
	Measurable Outcomes	-Community awareness program development (2024) -Generate work order of homes and buildings of high need (2024) -Approve contractor for repairs (2026) -Tribal council approval (2025) -Tribal workforce training for repairs (2027) -Weatherization of 50-100 homes and existing government buildings (2035)
	Location	INSY Reservation
	Funding Source	SDG&E Weatherization Program, DOE Weatherization Assistance Program, etc.
	Cost	$10,000,000
	Annual GHG Emission Reductions	CO_2e 50-100 metric tons
	Estimated Reduction in kWh: 132,300-264,600 kWh	
	Metric Tracking: project updates (2028, 2035)	

3.2.2 Measure 2: Installation of Renewable Energy Equipment

This measure works in conjunction with the INSY 2022 Tribal Hazard Mitigation Plan to address mitigation actions to install solar panels and battery banks while exploring options to develop a microgrid. INSY partnered with GRID Alternatives to successfully install free solar panels on 8 homes in 2020. A photovoltaic carport mount system was installed in 2023; however, outdated parts were used, and upgrades are needed to meet current guidelines for solar equipment. Preliminary data collection from SDG&E and INSY Tract screening projects have shown INSY reservation as not having the land suitable for a utility-scale project. Measure 2 addresses this by offering roof-top or ground mount systems at the site of use. Considerations for hybrid energy systems to include wind and solar will be evaluated on a site-by-site basis. The development of a microgrid community solar project vs roof top solar is still in the decision-making phase through the analysis of the Iipay Solar Option Analysis report produced by K.R. Saline & Associates, PLC in conjunction with Native Energy Resources Counsel, LLC. Measure 2 funding will address three areas of need for on-site renewable energy generation.

- Residential project planning and execution will include mapping housing locations to receive on-site renewable energy generation equipment, site feasibility reporting, and completed work to provide solar to 100 homes by 2035.
- Train lead Tribal members in work force development.
- All Tribal government run buildings will have functional solar or hybrid renewable energy generation equipment.

This measure works in conjunction with Measure 1 (See Table 12). When weatherization repairs are needed, if the homeowner requests renewable energy generation equipment, the feasibility study for rooftop solar will be conducted during that site's work orders. If the Tribe moves forward with microgrid planning, the land will need to be screened for culturally sensitive areas, critical habitats, water drainage, road access, and geotechnical analysis. Average annual household consumption is 9,802 kWh. For a 1,440 square foot home with optimal solar conditions, annual energy production is about 8,664kWh. This, in conjunction with Measure 1 and 3, outcomes of home weatherization and improvements to heating appliances should help community members reach a net-zero GHG emissions per home. With each rooftop solar unit, a reduction of 3.7 metric tons of CO_2 is offset.

Table 12 *Measure 2 Details*

<table>
<tr><th colspan="4">Measure 2: Installation of Renewable Energy Equipment</th></tr>
<tr><td rowspan="8">SCOPE 2
This measure will address renewable energy equipment to be installed on residential homes and INSY government buildings.</td><td>Implementing Agency</td><td colspan="2">Iipay Nation of Santa Ysabel EPA</td></tr>
<tr><td>Measurable Outcomes</td><td colspan="2">- Tribal council approval (2024)
-2 paid internships for Tribal members will be created (2025)
-Interns will receive training on solar installation. (2025)
-Residential mapping of homes to be served (2025)
-Renewable energy equipment installed in 100 residential homes (2035)
-Renewable energy equipment installed for all INSY government buildings (2035)</td></tr>
<tr><td>Location</td><td colspan="2">INSY Reservation</td></tr>
<tr><td>Funding Source</td><td colspan="2">GRID</td></tr>
<tr><td>Cost</td><td colspan="2">Cost estimations are in progress for PCAP ~ $8,000,000</td></tr>
<tr><td rowspan="3">Annual Reductions</td><td>kWh</td><td>GHG Reduction of CO_2e</td></tr>
<tr><td>866,400</td><td>Residential- 61MT Government- 42MT</td></tr>
<tr><td colspan="2">Metric Tracking: project updates (2028, 2035)</td></tr>
</table>

3.2.3 Measure 3: Providing Alternative Heating Options in Tribal Homes

Another factor is the heating sources in homes and buildings. Wood burning is our community's number one source of heat and sometimes used as a cooking source. Fireplaces are inefficient in distributing heat and upgrades are needed. Wood burning emissions are part of the natural carbon cycles on earth, but making the wood burning in homes more efficient can help to reduce GHG. Replacements with EPA approved heating appliances can reduce wood consumption by 1/3 (EPA, 2023). Our community uses on average 3 cords per year contributing to 1,893MT of Biomass CO_2e. This GHG emission would be reduced by 630MT. Funding for this measure will be used to:

- Improving heating sources in homes will be evaluated by households. Old fireplaces will be upgraded to alternative heating sources, including options for insert, standalone wood stoves, and electric split systems.
- Workforce creation and training for Tribal members to install systems.

Table 13 *Measure 3 Details*

Measure 3: Providing Alternative Heating Options in Tribal Homes		
SCOPE 2 This measure will address old heating sources and offer assistance with installing alternative heating options.	Implementing Agency	Iipay Nation of Santa Ysabel EPA
	Measurable Outcomes	-Generate work order with homes of high need (2025) -Approve contractor for repairs (2026) -Tribal council approval (2025) -Tribal workforce training for repairs (2026) -Heating upgrades of 80 homes (2028) -Community awareness program development (2024)
	Location	INSY Reservation Households
	Funding Source	CPRG, Alliance for Green Heat, HUD
	Cost	Cost estimations are in progress for CCAP
	Annual GHG Emission Reductions	CO_2e
		630MT
	Metric Tracking: project updates (2026, 2028)	

3.2.4 Measure 4: Divert Waste Through Improvements to Transfer Station

This measure proposes a plan to create facilities for waste management that address diverting waste from landfills (See Table 14). The development of a transfer station will include separate waste bins for community members to utilize. Historical use of the transfer station has included dumping into one 30-foot collection bin for all waste

products. This is then collected by Ramona Disposal and taken to their transfer station to be disposed of in the landfill. The INSY proposal is to upgrade the current site. Recycling and composting will help reduce GHG emissions. Currently INSY contributes approximately 154 short tons per year in landfill waste and generates approximately 80MT of CO_2e through this waste. INSY goals are to decrease solid waste by 10% through provided recycling facilities. According to the EPA 2.8MT of CO_2e is offset per ton of recycled waste. This measure will use funding to address three areas.

- Build a transfer station to include recycling, compost, and waste bins.
- Develop a community outreach plan to help Tribal members know how to separate waste in their homes prior to transportation to disposal site, use the new facilities, and other measures to reduce the use of onetime use plastics in the home.

Table 14 *Waste Management Details*

Measure 4: Divert waste through improvements to transfer station		
SCOPE 3 This measure will address the improvement of the current waste management facilities on INSY property	Implementing Agency	Iipay Nation of Santa Ysabel EPA
	Measurable Outcomes	-Tribal council approval of plans (2022) - Land development complete (2024) - Instillation of facilities (2025) -Develop community outreach plan (2022)
	Location	INSY Reservation
	Funding Source	GAP, IHS, SWIFR
	Cost	$3,300,000
	Annual GHG Emission Projected Reductions	CO_2e 2.8MT per ton diverted
	Metric Tracking: project updates (2025, 2028)	

3.2.5 Measure 5: Decrease GHG mobile emissions

This measure is proposed for primary GHG reductions to originate within Tribal government changes to fleet vehicles and non-road mobile sources (See Table 15). GHG inventory results show diesel powered engines as a contributor needing evaluation. Due to the power needed to navigate roads during storm damage and safety access, the tribe is hesitant to adopt a full fleet of EV vehicles. However, EV charging stations installed within community spaces can encourage Tribal members to consider EV vehicles. The purchase of EV vehicles for transportation to employee training and use

within reservation travel will help reduce GHG emissions. This measure will use funding to address two areas.

- Reduction of on-road vehicles emissions.
- Reduction of non-road vehicle emissions.

This measure must work with the installation of solar panels and backup batteries from measures 2. EV charging stations will be planned for initial installation at the Community and Tribal Hall lot. Outcomes to non-road mobile emissions will be mitigated by evaluating the Tribes brush crew and roads department. Industrial lawn and garden electric equipment may be replaced if functional at the same capacity as fuel-based equipment. One vehicle replaced with an EV vehicle for commuting to training events can reduce GHG emissions by 2.7MT of CO_2e. If two commuter vehicles are replaced the government operations can reduce their emissions by 5.4MT of CO_2e. Work trucks must travel on dirt roads in poor conditions year-round due to erosion by snow melt and rainfall. For this reason, EV work trucks are still being investigated by EPA staff before considering replacement.

Evaluation of diesel ran heavy equipment is needed to upgrade or retrofit to meet California state standards. Currently one backhoe out of 4 heavy equipment diesel engines uses diesel exhaust fluid (DEF) and one heavy duty dump truck uses DEF. Diesel emissions currently account for 61% of government mobile emissions. Efforts to reduce this can be addressed by adding diesel particulate filters (DPF) or diesel oxidation catalyst (DOC) to existing equipment. According to the EPA DOCs can reduce hydrocarbons by >70%. These methods are still being researched by the INSY EPA staff.

Table 15 *Mobile Emissions Details*

Measure 5: Decrease GH mobile emissions		
SCOPE 1 This measure will address emission reductions for Tribal government on-road and off-road emissions.	Implementing Agency	Iipay Nation of Santa Ysabel EPA
	Measurable Outcomes	-Create a plan for reducing heavy equipment diesel vehicle emissions. (2025) - Develop a plan to reduce non-Road mobile equipment. (2025) -Install EV charging station for community use at the community building. (2026) -Purchase EV vehicle for operations use when traveling to training or onsite. (2026) -Develop an employee commuting incentive program. (2025)
	Location	INSY Tribal Hall
	Funding Source	Grant Funding in the Process
	Cost	Cost estimations are in progress for PCAP
	Annual GHG Emission Projected Reductions	CO_2e Still being investigated
	Metric Tracking: project update (2028)	

3.2.6 Measure 6: Increase Carbon Sequestration

This measure seeks to increase the carbon sinks on the INSY reservation (See Table 16). Propagation and planting projects will be focused on degraded lands affected by anthropogenic activities. Considerations for culturally relevant plants will be a part of this process. CALFIRE reports, Southern California mountains are the only region in California where tree mortality continues to outnumber tree growth. This measure contributes to solution-based thinking by reforesting with consideration to current climate trends. This measure will use funding to address two areas.

- This measure's planning phase includes funds for staffing, expanding a greenhouse, and generating a map with trees to be planted in specified regions of the INSY reservation.
- Completion of planting projects with volunteers. A propagation specialist will be responsible for tracking tree mortality rates once a year.

The INSY reservation is on 15,546 acres yet only about 810 acres is used for housing and government operations. These areas have degraded land in and around due to anthropogenic activities. We have partnered with CALFIRE to remove many of the dead trees that have suffered mortality due to climate change and GSOB infestations. Because

so many trees will be removed the INSY EPA will be reforesting areas to account for this loss. Each household will also be offered about five trees per home to help enhance onsite sequestration of carbon that was affected by anthropogenic activities. Housing and government/community lots have about 10% tree cover which sequesters about 71 MT of CO_2. This can be increased by 10% with reforestation of degraded lands in and around households and government/community lands. The US Forest Service recommends 170 trees be planted per acre with an expected 25% mortality rate. Research estimates one acre of land sequesters 2,222 lbs of carbon per year. With these calculations for every 128 trees planted, about 1 ton of CO_2 will be offset. Considerations to growth rates and species of trees being planted are continuing to be evaluated by the INSY EPA staff. INSY has plans under the CALFIRE grant to reforest 7 tracts of oak woodland totaling 167 acres in response to fuel reduction activity. The difficulty accounting for accurate carbon sequestration values due to tree growth rates, tree type, and mortality rates makes CO_2 offsets limiting. According to the TGIT, approximately 116MT CO_2e is sequestered. This is based on the 167 acres combined with 760 trees being planted within the community site (~6 acres) resulting in 72 square km with an average 20% canopy cover. Also, informed decisions on future land use will include considerations for intact ecosystems to ensure continued carbon sequestration at a rate that is naturally occurring.

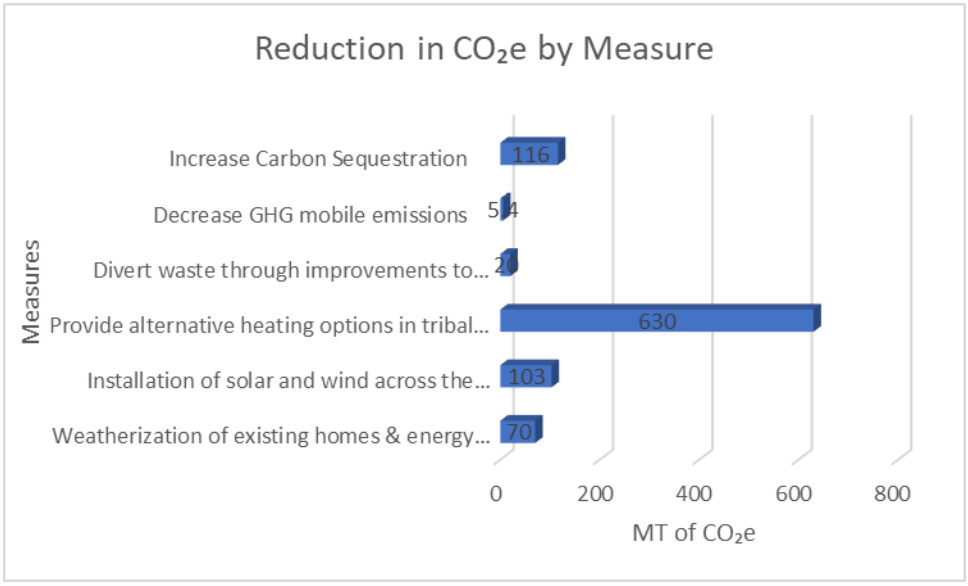
Table 16 *Measure 5 Details*

Measure 6: Increase Carbon Sequestration		
This measure will address degraded land needs for restoration and reforestation within fuel reduction lands.	Implementing Agency	Iipay Nation of Santa Ysabel EPA
	Measurable Outcomes	-Land assessment completed to identify areas of need for restoration (2023) -List of trees to include in planting projects by location (2024) -Scheduled events and volunteers organized to participate in planting projects. (2024) -Tribal council approval of plans. (2023) -Tracking of plants with 60% plant survival rate. (2026)
	Location	INSY Reservation
	Funding Source	CalFire Grant
	Cost	$300,000
	Annual GHG Emission Projected Reductions	CO_2e
		116MT
	Metric Tracking: project update (2028)	

3.3 Benefits Analysis

Analysis of proposed measures shows a benefit to four areas of the INSY reservation boundaries. Each measure has an estimated GHG reduction value in metric tons (See Figure 1). Priority measures include weatherizing homes and installing renewable energy production equipment.

Figure 1: *GHG Reduction by Measure*



3.3.1 Environmental Justice

According to the U.S. EPA, environmental justice can be defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income to be part of the development and implementation of environmental policies. The benefits of home weatherization, having access to innovative renewable energy sources, and efficient heating appliances in the home fall under these social equalities. This helps give our Tribal members the opportunity to have resources through grant funded services that would otherwise be unavailable due to the unaffordable cost out of pocket for our people. As our Tribe seeks to meet environmental innovation to address climate change, our people will be included in the improvements to sustainable living practices.

3.3.2 Environmental Health

These measures all benefit our local ecosystems. By reducing GHG emissions, air quality is enhanced while also contributing to the solution for global climate change. INSY reservation also is home to sensitive habitats such as the Western Pond Turtle, a California species of concern. Restoration funding will help to mitigate degraded lands in and around these habitats. Replanting projects in depleted soils will help restore natural cycles for our local ecosystems.

3.3.3 Health Benefits

Our community's health benefits include physical and psychological aspects. According to the California Air Resource Board, replacing fireplaces in homes reduces co-pollutants like carbon monoxide, oxides of nitrogen, volatile organic compounds (VOC), and particulate matter. These polluters can negatively affect people with heart disease, asthma, or other respiratory illnesses. Also, many housing units that are mobile homes or old/dilapidated buildings have problematic mold issues affecting our children and elders. Improvements to home weatherization services will benefit our population by decreasing sources of mold in the house. Other psychological benefits come when people feel taken care of and the internal growth from being part of overall developments of the Tribes' goals. Increasing the work force for Tribal members also benefits the health of INSY Tribal members.

3.3.4 Economic Benefits

The economic benefits provided by these measures come from reducing energy costs. These are accrued by electric, propane and wood heating sources. A projected 8,664kWh will be reduced through our solar project. Weatherization benefits are projected to reduce homeowners' energy consumption by 2,646kWh. Upgrading the solar for government operations has economic benefits as well. However, the cost benefits are primarily to benefit the Tribal members. Additionally, the workforce creation will strengthen the economic prosperity of the Tribe and surrounding communities.

3.4 Review of Authority to Implement

These GHG measures have multiple authorizing entities depending on areas of expertise. The Iipay Nation of Santa Ysabel, as a federally recognized Tribe, has authority to implement these measures. The INSY Tribal Council will have authority for all final decisions to implement measures.

The Iipay Nation of Santa Ysabel is a federally recognized Tribe and is governed by a constitution, which establishes a government organization structure. There is a General Council that consists of all enrolled members that are eighteen years of age and older. A Tribal Council that consists of the Tribal Chairperson, Vice Chairperson, Tribal Secretary, and four (4) Council Members (two (2) Resident Council Members and two (2) Non-Resident Council Members). The Judicial Branch consists of one Judge from the Southern California Tribal Court System.

All inherent sovereign powers of government shall be vested in the General Council. The General Council shall be the supreme governing body of the Iipay Nation. The General Council has delegated to the Tribal Council the legislative power to make laws and appropriate funds in accordance with Article VI and the power to execute the laws and administer funds in accordance with Article V. The General Council has delegated to the Judicial Branch the judicial power to interpret and apply the laws and Constitution of the Nation in accordance with Article VII.

The Jurisdiction of the Nation shall extend to all persons, activities, and property within the Territory based upon inherent sovereignty and outside the Territory based upon inherent sovereignty and applicable law. Any person who enters the Territory shall, by entering, be deemed to have consented to the Jurisdiction of the Nation. Every license or permit issued under the authority of the Nation shall include a provision submitting all parties and their assigns to the Jurisdiction of the Nation. Any employee of the Nation shall, by accepting employment, be deemed to have submitted to the Jurisdiction of the Nation. The Tribal Council shall have the power to assert the Sovereignty and Jurisdiction of the Nation by law over all matters that affect the interests of the Nation. Nothing in this Article shall be construed to limit the ability of the Nation to exercise its Jurisdiction based upon its inherent sovereignty as an Indian Nation.

Measures related to our electrical systems will include authorizations from San Diego Gas & Electric along with INSY EPA and Tribal council approvals.

3.5 Identification of Other Funding Mechanisms

The measures above note whether funding is still in the process. Funding is still needed for weatherization, heating upgrades, residential solar, and EV vehicle systems. While these projects can be funded by Phase 2 CPRG implementation, additional grant funding being explored includes:

- U.S. Department of Energy Weatherization Assistance Program

        - Funding can be used for the weatherization of Tribal Households to include replacement of outdated windows, doors, roofing, insulation, etc.
    - HUD Green and Resilient Retrofit Program
        - Funding can be used for upgrades to Energy Star windows, fire resistant roofing, and clean energy generation.
    - Indian Community Development Block Grant
        - Funding can be applied to community facilities like road repairs, water, and sewer upgrades; as well as housing rehabilitation to create suitable living environments.
    - GRID Formula Grant
        - Funding offered through DOE is designed to increase the flexibility, efficiency, and reliability of the electric power system.

3.6 Workforce Planning Analysis

There is a need for specialized workforce development within measures 1, 2, and 3. Grant funding for these measures will include training Tribal members in:

- Weatherization of homes
- Roof infrastructure
- Solar installation
- Heating unit upgrades
- Energy efficient appliances

When needed, contracted companies will be chosen in accordance with INSY and federal procurement processes. When budgets are created, allocated funds will cover training, project implementation and grant administration. Job announcements will go through Human Resources and emphasize Tribal preference for these lead positions. Internships for interested Tribal students will be considered as part of the focus population to receive training.

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Appendix A

GHG listed by sources, sector, type of GHG gas in metric tons of CO2e

Figure 2 *GHG by Source and Sector*

GHG Inventory Categories			**Annual Metric Tons CO2e Emissions**			
Sources	**Sector**	**Category**	**CO_2**	**CH_4**	**N_2O**	**Total**
Scope 1						
Stationary Combustion	Residential	Propane	252	.344	.651	253
	Residential	Wood	1,870	4	19	1893
	Government	Propane	10.4	.014	.027	10
Mobile	Residential	Gas	198	.262	4.1	202
	Government	Gas	39.6	0.216	0.688	41
	Government	Diesel	62.6	.172	1.5	64
Total Scope 1 GHG Emissions			**2400**	**5**	**23**	**2463**
Scope 2						
Electricity	Residential	SDG&E Electricity	359	0.587	0.716	360
	Government	SDG&E Electricity	277	0.453	0.553	278
Total Scope 2 GHG Emissions			**636**	**1**	**1**	**638**
Scope 3						
Business Travel	Government	Gas	1.2	.0009	.007	1
		Air Travel	2.2	.0003	.019	2
Mobile	Employee Commute	Gas	67.6	0.049	0.413	68
Waste	Mixed	Solid Waste				80.2
Total Scope 3 GHG Emissions			**71**	**0.05**	**0.44**	**72**
Total INSY GHG Emissions			**3107**	**6.05**	**24.44**	**3173**

Appendix B

Compiled list of planning documents through Tribal operations and partnered reports.

Title of Report	Description	Authoring Agency
Community Plan	Initial plan to address INSY concerns, resources, and needs	INSY Tribal Operations
Residential Survey 1	Survey inquiry for solar, appliance, and transportation	INSY Tribal Operations
EPA Tribal Environmental Plan	INSY EPA roles and implementation planning document	INSY Tribal Operations EPA
Tribal Hazard Mitigation Plan	Risk analysis and mitigation goals	INSY Tribal Operations EPA
Iipay Solar Options Analysis	Analysis of residential and community solar projects	K.R. Saline & Associates, PLC
QAPP	INSY CPRG Quality Assurance Project Plan	INSY EPA & US EPA