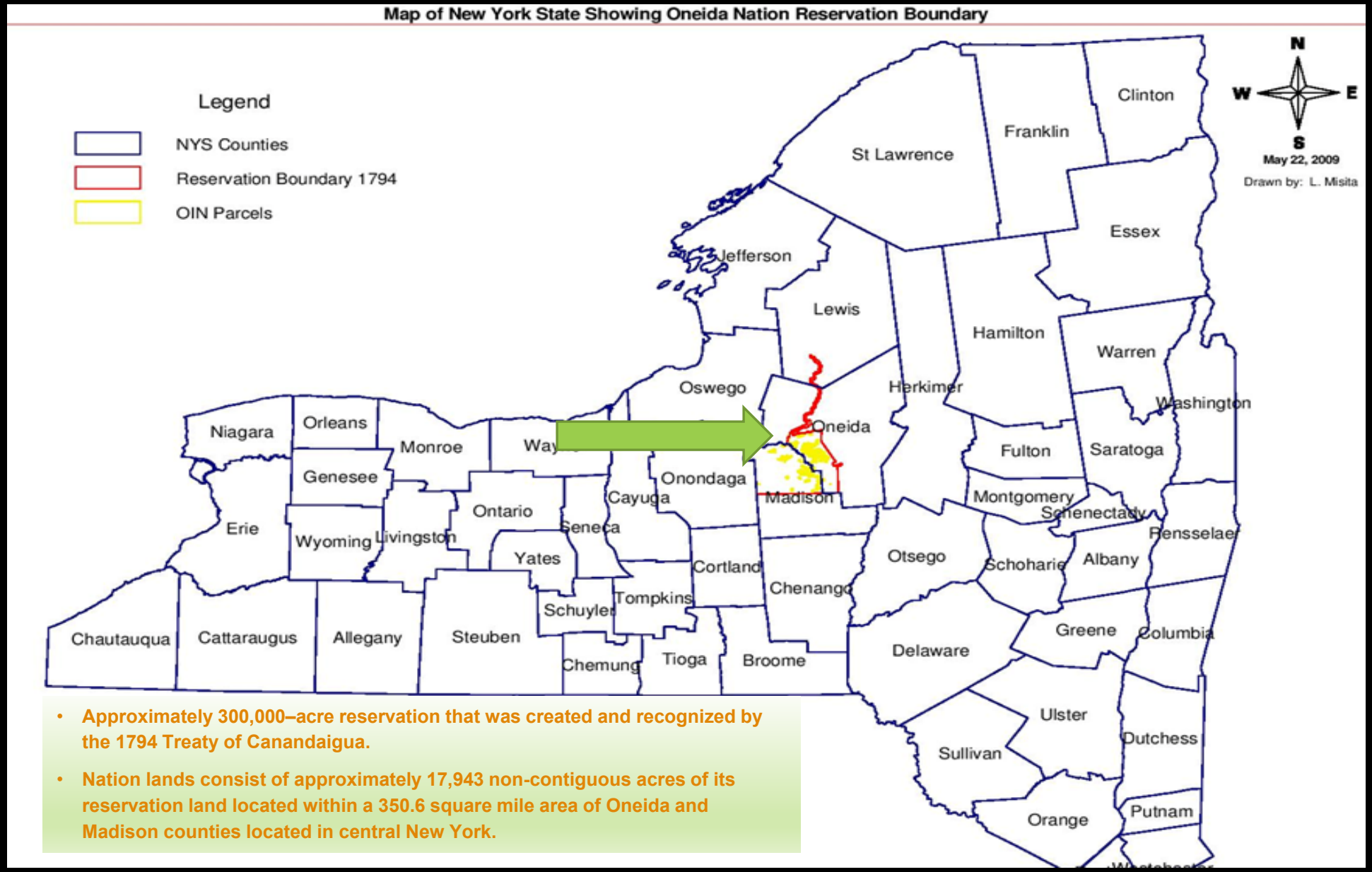
THE ONEIDA INDIAN NATION

OUR JOURNEY WITH US DEPARTMENT OF ENERGY

TRIBAL ENERGY PROGRAMS

WHERE WE ARE



- **Approximately 300,000–acre reservation that was created and recognized by the 1794 Treaty of Canandaigua.**
- **Nation lands consist of approximately 17,943 non-contiguous acres of its reservation land located within a 350.6 square mile area of Oneida and Madison counties located in central New York.**

WHO WE ARE

- A Federally recognized, self-governing sovereign Indian nation with approximately 1,000 enrolled members located in central New York State.
- The Oneida Indian Nation is Governed by Council and is comprised of up to three members from each of the Nation's clans (Wolf, Turtle, and Bear). Council selects one or more Nation Representatives to represent the Nation in governmental and business affairs. Ray Halbritter has served as Nation Representative since 1975 and is currently the sole Nation Representative.

WHO WE ARE

The Nation's three long-range goals to guide the social and economic development of its community:

1. Help the Nation's members achieve their highest potential in education, physical and mental health, and economic development;

2. Implement the legal and administrative structure necessary for the stability and protection of Nation sovereignty, treaty rights, and government-to-government relationships; and

3. Acquire, develop, and secure resources to achieve economic and social empowerment and self-sufficiency.

WHO WE ARE

Oneida Indian Nation lands support a significant and diverse range of facilities, activities and operations, including:

- Approximately 6,475 acres where Nation government, health, education, and cultural facilities and activities are located.
- Member housing; hunting lands; and numerous non-gaming Nation enterprises, including 12 gas stations and convenience stores, marinas, a hunting preserve and a car care operation.
- Multiple gaming facilities, including Point Place Casino, Yellow Brick Road Casino and the Nation's **3,200,000** square foot Turning Stone Resort.
- Third party business operations doing business on Nation lands, including, retail shopping, several Dunkin Donuts, a supermarket and dining establishments.
- Approximately 7,467 acres in Madison County and Oneida County containing undeveloped, active and inactive agricultural lands.

THE ONEIDA INDIAN NATION RECOGNIZES THE NEED TO BE A RESPONSIBLE STEWARD OF ITS RESOURCES

Reflective of cultural values, the long-term energy goal/vision of the Nation is to embrace an environmental policy that uses sound environmental management practices to preserve and protect its natural resources to ensure a safe, healthful, and productive environment for current residents and visitors on its lands, as well as for the seventh generation to come.

The Oneida Indian Nation is committed to sustainable development and, to achieve this goal, is committed to pollution prevention, waste reduction, the wise use of renewable and nonrenewable resources, conservation of energy, and preservation of important aspects of its historic, cultural, and natural heritage.

RECENT US DEPARTMENT OF ENERGY GRANT FUNDED ONEIDA INDIAN NATION PROJECTS

Within the past five years, the following US Department of Energy Tribal programs have assisted the Oneida Indian Nation with its energy goals:

- $1 Million Community Scale Clean Energy Deployment Combined Heat and Power grant (awarded 2015)

- $153,977 First Steps toward Developing Renewable Energy and Energy Efficiency on Tribal Lands grant (awarded 2017)

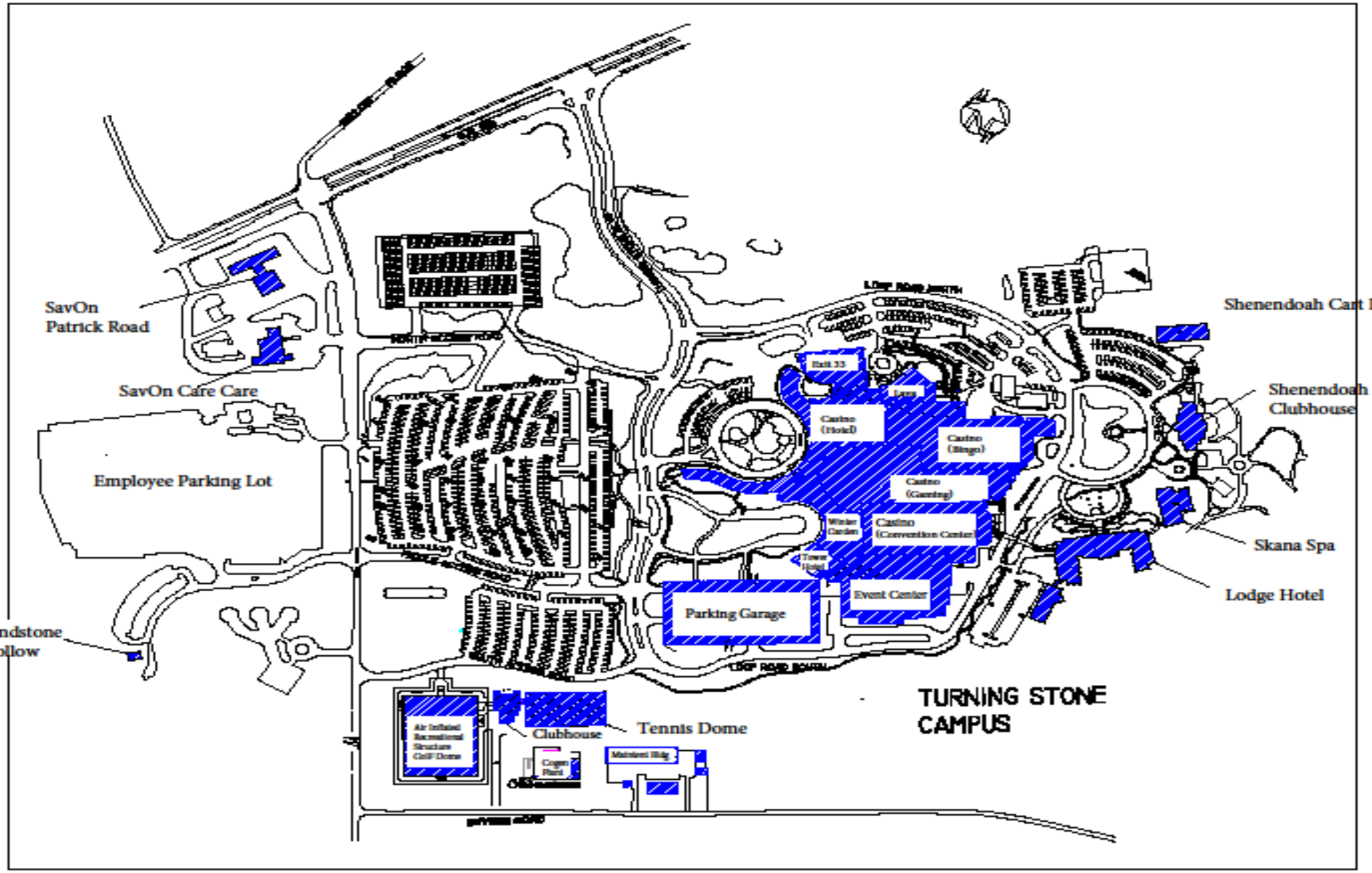
- $1 Million Energy Infrastructure Deployment on Tribal Lands grant (awarded 2019)

ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

Project Location:

The Oneida Indian Nation's

Turning Stone Resort Casino


SavOn
Patrick Road
SavOn Care Care
Employee Parking Lot
Sandstone
Hollow
Shenendoah Cart Barn
Shenendoah
Clubhouse
Skana Spa
Lodge Hotel
Exit 33
Casino
(Hotel)
Casino
(Bingo)
Casino
(Gaming)
Casino
(Convention Center)
Event Center
Parking Garage
Clubhouse
Tennis Dome
TURNING STONE
CAMPUS

ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

TURNING STONE IS THE AREA'S LARGEST CONSUMER OF ENERGY

Over the last twelve months Turning Stone purchased 29,966,000 kWh of electricity from the local utility, generated 32,708,000 kWh of electricity and consumed 6,499,000 therms of natural gas. In a given year, the amount of electricity and natural gas purchased and used by Turning Stone could light over 104,100 homes and heat over 7,600 homes in New York State.

ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

The ultimate project objectives for the Nation were to:

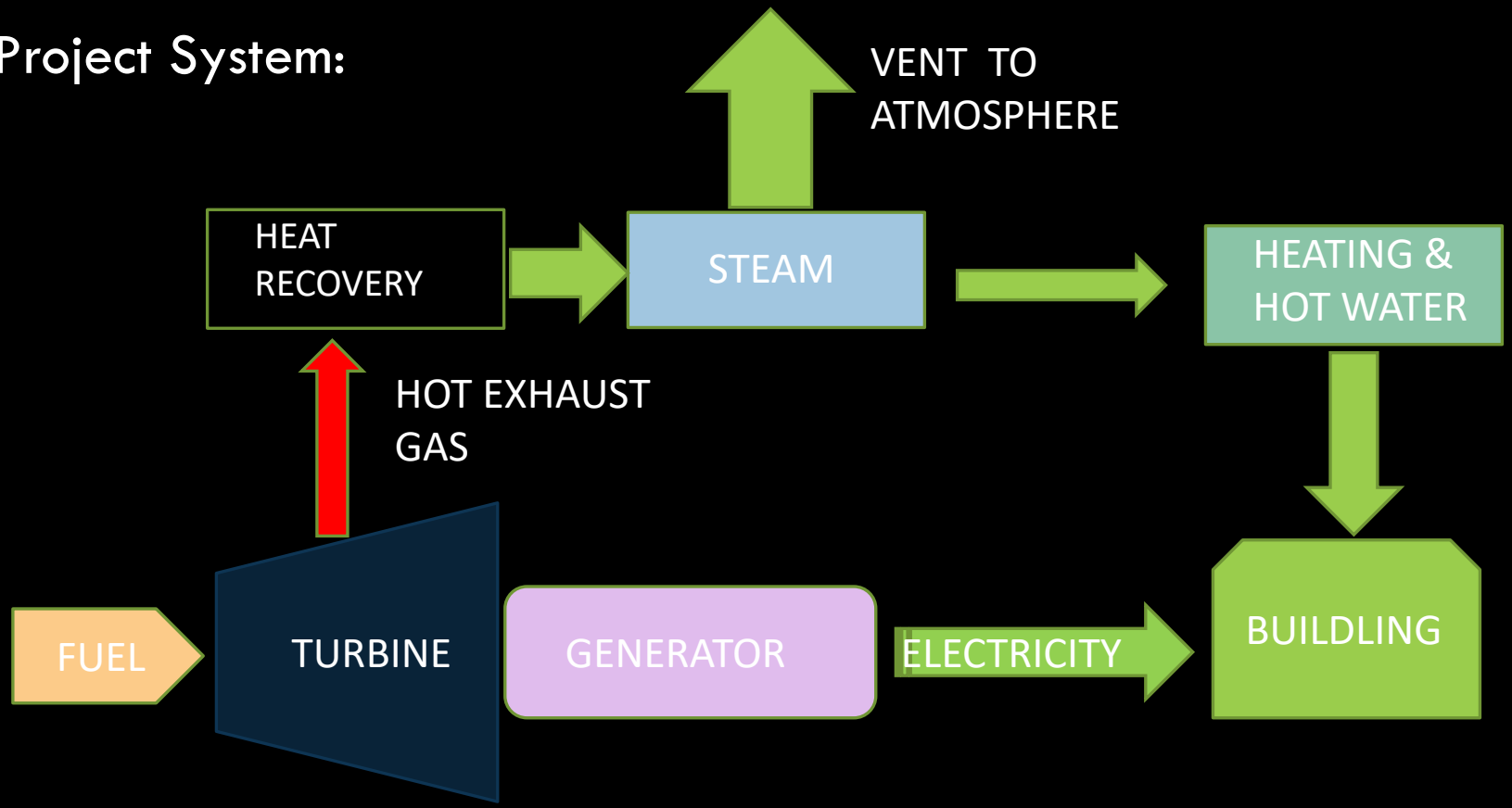
- Leverage the Nation's existing Central Utility Plan, which produces most of Turning Stone's energy, to generate significant energy from a clean energy source, reduce dependence on fossil fuels and recognize significant cost savings;

- Utilize 100% of the thermal energy produced by the current 5.2 MW Solar Gas Turbine with a Heat Recovery Steam Generator (HRSG) for additional energy usage and production; and

- Reduce peak electrical usage by the facilities on the Turning Stone Resort campus and achieve additional energy cost reduction.

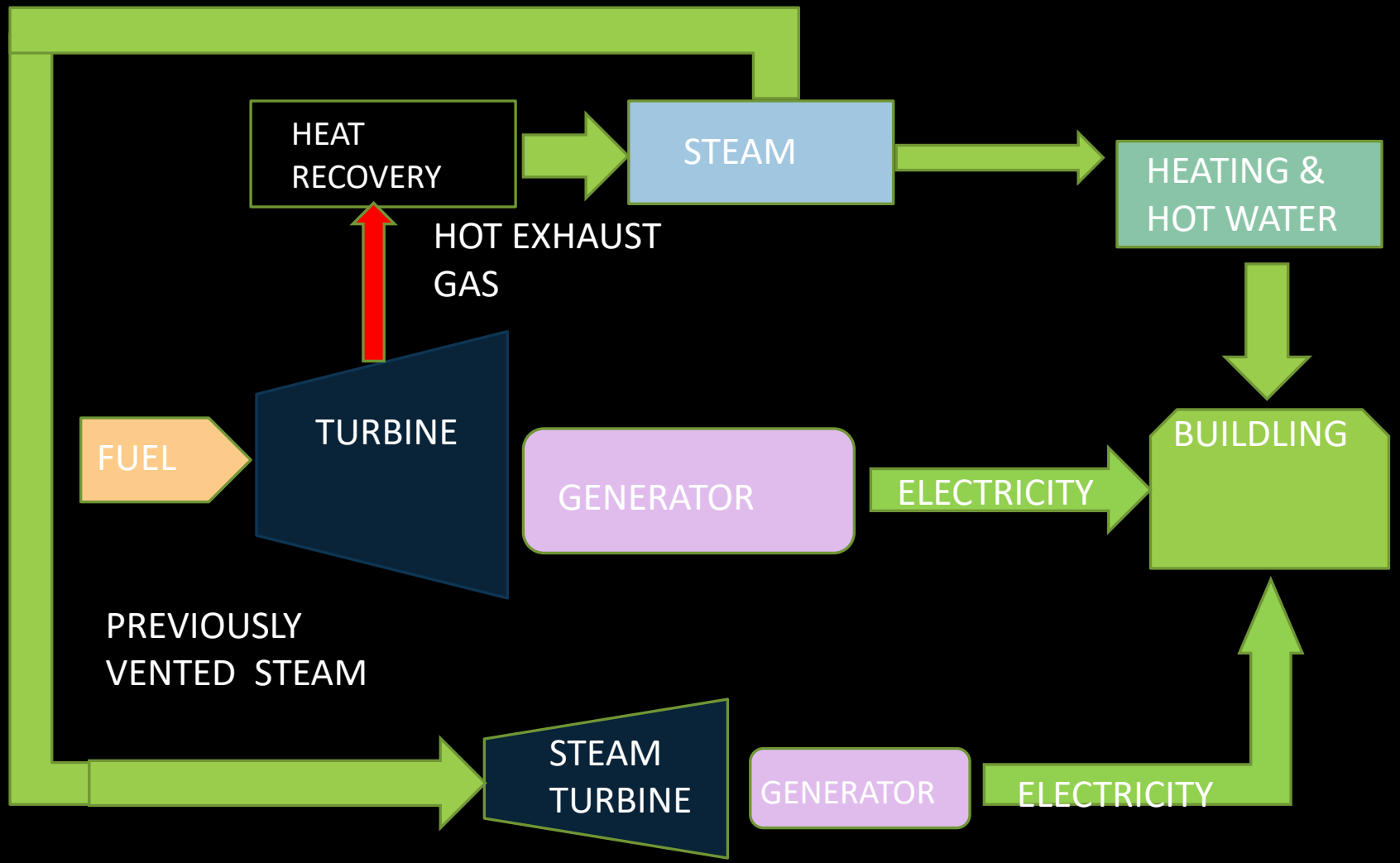
ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

Pre-Project System:



ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

The Modified System:



ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

- This project was on the back burner for the Nation for many years due to competing priorities and cost considerations.

- The $1 MM US Department of Energy Grant pushed this project across the line to make it a reality for the Nation.

ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

PROJECT STATUS AND OUTCOMES

The project is currently fully operational. As of January 2020, the project has produced approximately 3.7 Million kWh and continues to increase efficiency and capacity.

- The installation of the Steam Turbine Generator system has resulted in an increase in overall operation efficiencies, reduced dependency on grid supplied electricity, and reduced utility bills.

ONEIDA INDIAN NATION
COMMUNITY SCALE CLEAN ENERGY DEPLOYMENT
COMBINED HEAT AND POWER PROJECT

PROJECT STATUS AND OUTCOMES CONTINUED

- Another, non-quantifiable—but equally important—outcome of the proposed project is that it demonstrates the Nation's commitment to stewardship of the Nation's resources for the benefit of its members, now and to the seventh generation, by becoming more self-sufficient and less reliant on energy from the public grid.
  - The Nation is generating electricity using a wasted thermal energy; and
  - Electric demand by Turning Stone has been, resulting in less stress and demand on the grid.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

The success of the Oneida Indian Nation's Central Utility Plant upgrade project reinforced the Nation's interest in addressing energy needs as a way to further environmental stewardship while producing fiscally sound results.

The Nation began looking for other opportunities to increase energy efficiency at about the same time the First Steps toward Developing Renewable Energy and Energy Efficiency on Tribal Lands grant opportunity was released.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

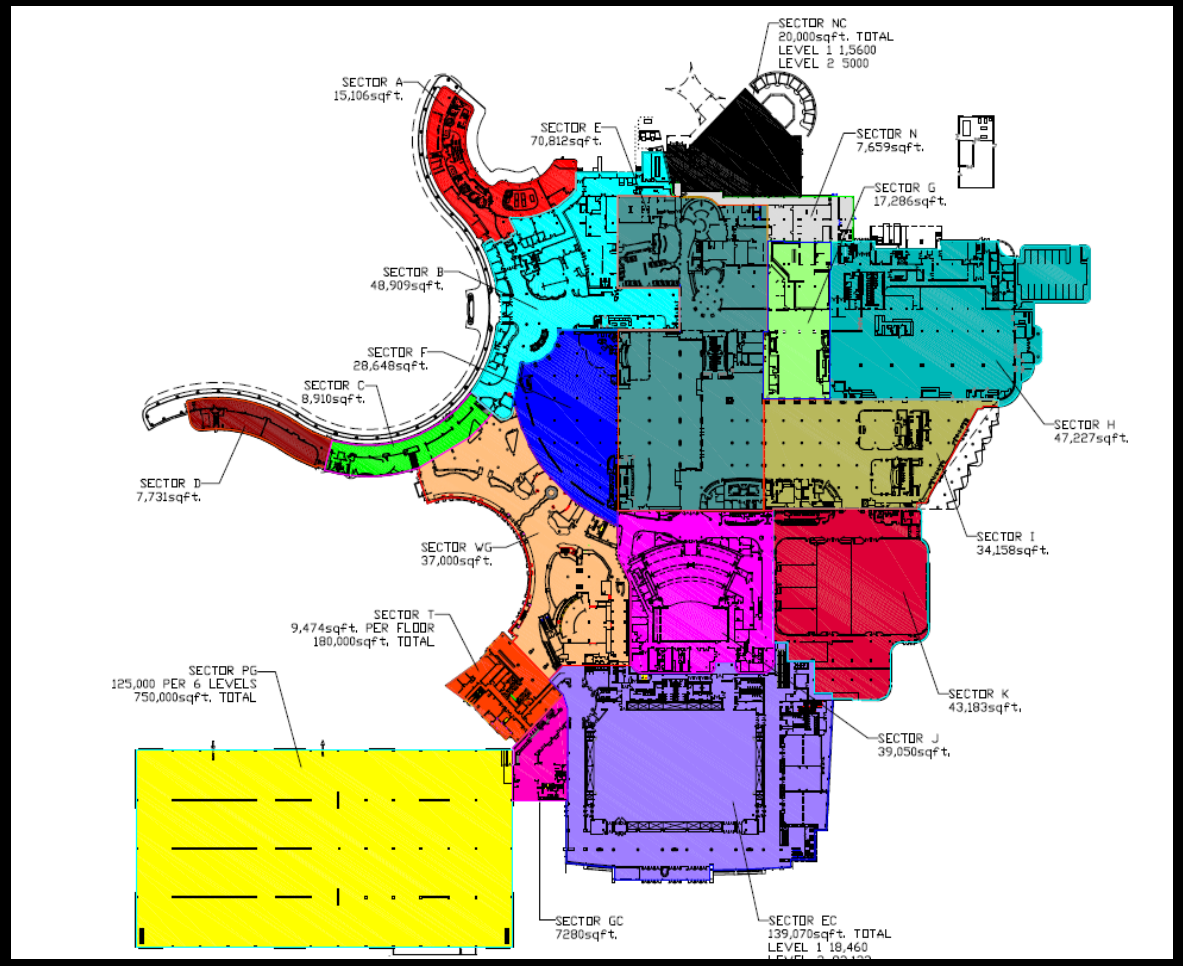
THE PROJECT

- The Nation contracted with an energy consultant (The Weidt Group, a division of EYP, Inc.,) to provide an analysis of energy consumption for approximately 50 buildings (~3.5 million square feet) and to develop a plan to move forward with the implementation of energy efficiency measures. The audit was performed to ASHRAE Level II requirements and requirements of the DOE First Steps Toward Developing Renewable Energy and Energy Efficiency on Tribal Lands grant.

- Prior to beginning the audit process, the Nation provided the consultants with consumption data for gas, electricity, oil, propane, etc., and building usage profiles for each of the Nation's facilities, including occupancy and hours of use.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

Facilities Studied



Turning Stone Resort Casino

Turning Stone Resort Casino 700 Hotel Rooms – Over 4.5 million guests per year

- **4 Hotels**
- **2 Golf course clubhouses**
- **11 Restaurants**
- **2 Spas**
- **Golf Dome and Sports Complex**
- **Entertainment Venues**

Yellow Brick Road Casino

10 SavOn gas stations and convenience stores

Warehouses

Administrative buildings

Marina operations

Community facilities (Recreational center, cultural center, cookhouse, etc.)

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

PROCESS

Step 1: Decide on boundaries

- The Oneida Indian Nation identified the buildings that formed the boundaries for this study.

Step 2: Choose a baseline year or years

- The baseline year was established as the most recent year of utility bills that were available at the start of this project, October 2016 through September 2017.

Step 3: Gather Energy Data

- 24 consecutive months of utility data was collected where available. This data was entered into The Weidt Group's B3 Benchmarking program. In cases where a complete billing history could not be provided by the Nation, for the baseline energy use intensity (EUI) was estimated based on the established benchmark and on-site observations.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

PROCESS CONTINUED

Step 4: Survey energy use and identify significant energy users

- An energy audit was conducted on the buildings identified in Step 1. The audit was used to determine how energy is consumed in the facilities and identify opportunities to improve efficiency.

Step 5: Identify opportunities for energy savings

- Opportunities for reducing energy use and costs were developed based on the site surveys. The energy and cost savings along with the estimated maintenance savings and implementation costs were identified for each measure.

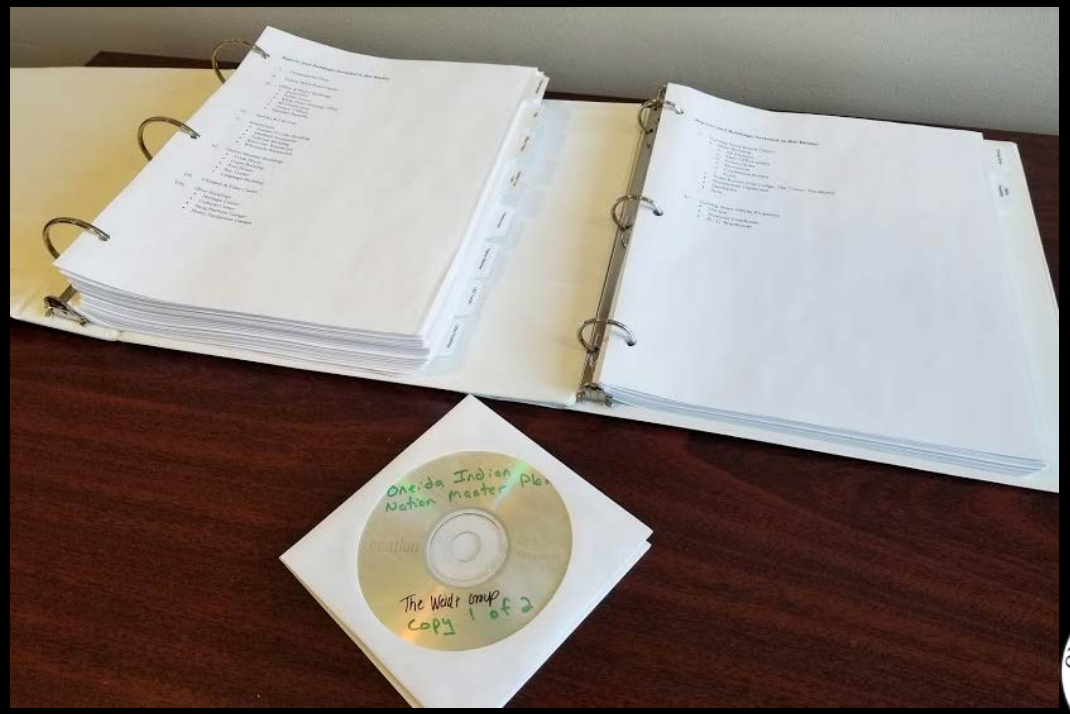
Step 6: Develop an energy action plan

- With Weidt's assistance, the Nation prioritized actions to be taken.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

DELIVERABLES

- **Analysis and recommendations for all studied properties**
- **1 year license for vendor's proprietary energy benchmarking tool (software & training)**



FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

The 2018 energy audit report explored feasible technology alternatives. Using industry expertise, the consultant recommended specific technologies (e.g., LED lighting, electronically commuted motors for coolers) for each building and measure. Each recommended measure was described in detail, evaluating compatibility with existing infrastructure, operation, and costs, with assumptions clearly stated.

FIRST STEPS TOWARD DEVELOPING RENEWABLE ENERGY AND ENERGY EFFICIENCY ON TRIBAL LANDS PROJECT

TIMELINE – 15 MONTHS

ACTIVITY	START	END
Project Kick Off	10/9/2017	
Identify Boundaries of Study	10/17/2017	11/30/2017
Data Gathering	10/30/2017	1/30/2018
Complete Analysis Begin Benchmarking	2/1/2018	
Complete Benchmark Study	2/1/2018	4/1/2018
Identify Buildings for Cost Savings	2/1/2018	4/1/2018
Report Review Utilizing B3 Tool	3/1/2018	6/1/2018
Identify Next Steps	4/1/2018	6/1/2018
Begin Energy Audit	2/1/2018	9/1/2018
Audit Draft Review	8/1/2018	10/1/2018
Interactive Analysis	10/1/2018	10/31/2018
Final Report and Close Out	10/1/2018	11/30/2018

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

The Oneida Indian Nation's *First Steps* master energy planning project, which was completed in 2018, laid the foundation for the Nation's third and most recent Department of Energy supported project.

In late 2019, the Oneida Indian Nation began implementing many of the recommendations from its master energy planning reports and received a $1 Million Department of Energy *Energy Infrastructure Deployment on Tribal Lands* grant in support of these efforts.

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

THE PROJECT

The project encompasses 27 buildings located on Oneida Indian Nation lands, including offices, cultural centers, police facilities, convenience stores, with the largest being the Turning Stone Resort and Casino, which includes gaming space, lodging facilities, spas, entertainment complexes, dining and banquet facilities, and administrative offices.

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

PROJECT GOALS AND OUTCOMES

The project will further the Nation's ultimate energy goals to preserve and protect its natural resources to ensure a safe, healthful and productive environment for current residents and visitors on Nation lands, as well as for the seventh generation to come. The Nation estimates the project will produce the following:

(1) over ***$450,000*** saved annually;
(2) decrease of more than ***4 million kWh*** and ***50,000 therms*** of energy usage annually; and
(3) reduction of more than ***3,000 metric tons of greenhouse gas emissions*** annually.

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

EXAMPLE ENERGY EFFICIENCY MEASURES TO BE IMPLEMENTED

Interior / Exterior LED Lighting (25 buildings)

- **Replacing the existing incandescent, fluorescent, and high intensity discharge fixtures with new LED fixtures.**
- **Exterior lighting (primarily parking lots, including those at Turning Stone) will be updated to LED fixtures. This will involve removal of existing fixtures and installation of new fixtures, as well as replacement of light poles to accommodate the new fixtures. Interior lighting will also be converted to LED and will consist of removal of existing fixtures and installation of new fixtures and occupancy sensors.**

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

EXAMPLE ENERGY EFFICIENCY MEASURES TO BE IMPLEMENTED (CONTINUED)

Remote HVAC Management (19 buildings)

Includes installing programmable thermostats and a remote access connection and implementation of demand control ventilation with CO_2 sensors and Remote Terminal Unit Distributed Control System (RTU DCS) controllers.

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

EXAMPLE ENERGY EFFICIENCY MEASURES TO BE IMPLEMENTED (CONTINUED)

Other Energy Efficiency Measures include:

- Hot water heater upgrades (3 buildings)
- Refrigeration condensing unit upgrades (3 buildings)
- Walk-in evaporator fan electronically commutated controls (5 buildings)
- Snow melt boiler replacement (1 building)
- HVAC replacement (1 building)

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

Verification of Energy and Cost Savings:

- The Nation will use benchmarking software to compare energy usage for the 12 months prior to implementation of EEMs to at least a 12-month period after implementation to demonstrate overall energy and cost savings realized.

- Where the software can't be utilized, due to size of the facility or other factors, the Nation will calculate savings based on baseline data from the 2018 energy audit for each EEM, project annual energy savings at the time of commissioning and calculate cost savings based energy savings multiplied by current utility rates.

ENERGY INFRASTRUCTURE DEPLOYMENT ON TRIBAL LANDS

Project Status:

- September 2019- Project kick-off.
- October 2019- Nation licensed benchmarking software to continue to analyze data and verify EEM impacts at all non-Turning Stone facilities.
- Project staff have spent the first few months reviewing product samples and meeting with potential suppliers and/or contractors to determine specifications for products in preparation for procurement.

Thank You!

Committed To Environmental Sustainability To Fulfill Our Promise To Generations To Come