A. COMPREHENSIVE DEVELOPMENT PLAN (DGEIS)

The Proposed Project would conform to the energy conservation standards recommended by the New York State Building Construction Code. Construction following these guidelines would minimize the Proposed Project's domestic energy needs. Buildings will be designed and constructed so that the design and selection of equipment and systems for the purpose of energy conservation would comply with the applicable provisions set forth in the New York State Energy Conservation Construction Code. A number of energy conservation methods were utilized in the overall planning of the Proposed Project including designing roadway, trails, bicycle paths, and pedestrian walkways to provide direct connections between activity areas, residential neighborhoods, and retail and entertainment areas, using landscaping to shade buildings and pervious pavers to minimize stormwater runoff, and orienting buildings and parking areas to make the most of natural heating and cooling processes.

ANTICIPATED ENERGY DEMAND

Table 24-1 presents the estimated electrical demand that will be generated from the Proposed Project. The phases of the Proposed Project are described in Chapter 1, "Project Description." The electric loads assume that heat and air conditioning would be provided by gas.

The energy required for heating, air conditioning, and other non-electrical energy needs is expected to be provided by propane stored in tanks on the Project Site.

STRATEGIES TO REDUCE ENERGY DEMAND

With the planning and design of future phases of the Proposed Project, the Applicant will look for opportunities to implement non-traditional energy generation (i.e., solar panels, geothermal, etc.). In addition, opportunities for the use of alternative energy will continue to be evaluated during the operation of the Resort based on feasibility, cost and benefit. Green building design, construction, operations, and maintenance practices will be considered in developing plans for each of the future phases of the Proposed Project. The goal of these strategies will be to achieve high performance in key areas of human and environmental health including energy efficiency.

The Applicant intends to integrate sustainability into components of the property, including the provision of energy. The design of the architectural elements of the site plan would integrate appropriate style elements to improve daylighting of the interiors and reduce the need for energy consumption for lighting and temperature regulation. The building envelopes of the on-site structures would be designed in conjunction with HVAC, lighting, and other systems to maximize energy performance.

Table 24-1
Proposed Project Electrical Demand

Project Phase	Total Area of Buildings (sf)	Design KVA	Design Amps (480V)	Total VA/SF	Total Watts/SF (PF=.85)
Phase 1 – Casino Resort A	568,117	6,148	7,395	11	9.2
Golf	56,000	395	476	7	6
Casino Resort B	145,000	1,138	1,423	8	6.9
Entertainment Village	388,000	2,535	3,049	7	5.6
Residential Village, Hospitality & Recreation	819,228	5,570	6,700	7	5.8
Hospitality, Commercial & Residential	1,225,000	7,582	9,120	6	5.3

Notes: This table is a summary of the Electric Load Letters provided to NYSEG on March 30, 2012 (Appendix: G).
KVA=Kilovolt-ampere
V=Volt
VA/SF = Volt-ampere per square foot
PF= power factor
VA=Volt-ampere
Sources: AKRF Engineering P.C.

B. SITE-SPECIFIC DEVELOPMENT OF PHASE 1

ANTICIPATED ENERGY DEMAND

As shown in Table 24-1 above, the area of the buildings which would be a part of Phase 1 is estimated at 568,117 square feet. The demand for electricity in Phase 1 would be a total of 9.2 Watts/SF.

The energy required for heating, air conditioning, and other non-electrical energy needs would be provided by propane stored in a 30,000-gallon tank on the Project Site. As a safety precaution, emergency shutoff valves in the associated piping would be provided at the tank and 50 feet away from the tank. Bollards would be located around the tank adjacent to vehicle access points.

STRATEGIES TO REDUCE ENERGY DEMAND

It is the intent of the Applicant to identify and incorporate energy efficiency and innovation opportunities while ensuring guest comfort, resource efficiency, and reduced energy costs.

Several development controls would be incorporated to ensure that Phase 1 would not have a significant impact on the site and would minimize the demand for electricity and fuel. The project incorporates green building materials and utilizes sound design practices. The following items have been considered throughout the design process:

- Glazing – Advanced glazing systems with increased R values to reduce solar heat gain and prevent unnecessary energy use;
- Landscaping – Mature trees will be left in place wherever possible to provide shade and reduce the heat island effect and, in turn, energy needed for cooling;
- Lighting – Efficient LED lighting at specialty fixtures and exterior site lighting fixtures to reduce electric consumption;

- Water –Efficient fixtures will be utilized at lavatories, urinals, and water closets to reduce the amount of water used in the Casino Hotel pursuant to the requirements of the New York State Building Code.

In addition, the Applicant is evaluating recapturing excess heat from the laundry facility for reuse. Additional sources of renewable energy, such as solar, may become available as the project develops. ✷