



Grayson Repowering Project

GWP Power Supply Planning and Clean Energy Initiatives

August 16, 2022

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Glendale Water & Power

Today's Decision Points

- Authorize Negotiation and Award of Unit 9 Separation Contract
- Approve Alternative Project Delivery Method - Balance of Site work
- Approve Wartsila Phase 2 Limited Notice to Proceed Contract
- Award Contract Amendments for
 - Stantec – Additional Environmental Services
 - Black & Veatch – Owner's Engineering Services
 - Clean Power Consulting Partners –Project Management
- Direction on Wartsila units vs staying the course (Modified Alt. 7)



Power Supply Challenges Facing GWP

- Ongoing uncertainty with Grayson Repower
- Extended/ongoing outages at Power Plant
- Sunrun has terminated their virtual power plant offer
- Demand Response program is underperforming
- Delayed completion of purchased renewable power
 - Eland Solar + Storage
 - Star Peak Geothermal
- LADWP has confirmed they are not the solution

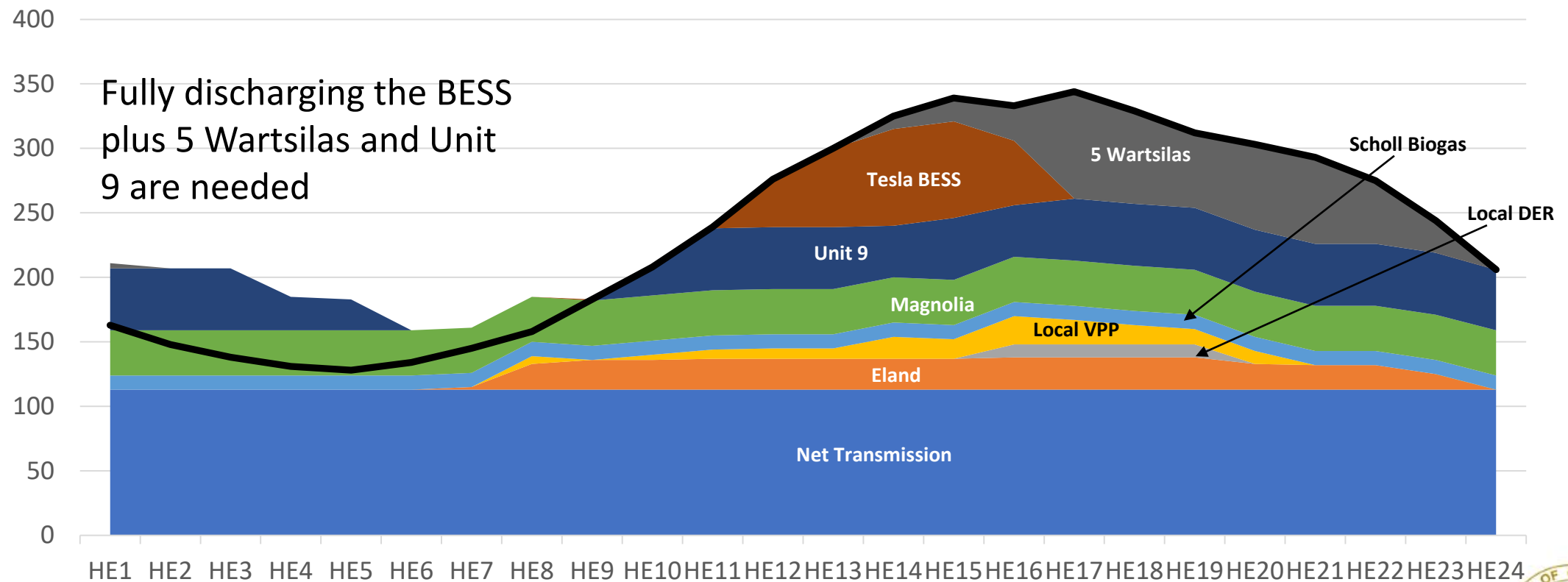


GWP Must Plan to Keep the Lights On 24/7

- Need sufficient power (MW) and energy (MWH) to cover load
 - 346 MW historic peak load
 - Electrification will increase load and energy need
- Must maintain N-1 and N-1-1 reserves
 - GWP is heavily dependent on imports
 - Local generation needed to deal with contingencies
- Looking at MW alone assumes all resources available when needed
 - Must also look at when resources are available to meet daily energy needs



Peak Day with N-1 and N-1-1 Contingency



LADWP Not the Solution

- March 21, 2022 Meeting with LADWP
 - City of Glendale Councilmembers Brotman and Najarian, City Manager, GWP General Manager, and LADWP Board member and executives attended
- LADWP confirmed:
 - GWP must cover N-1 and N-1-1 reserves
 - LADWP will only provide 80 MW of contingency reserves for the first 60 minutes as stated in the Balancing Authority Area Services Agreement (BAASA)
 - If needed, GWP must reduce load to maintain N-1 and N-1-1 reserves
 - LADWP does not have any additional resources to sell to GWP to provide capacity or cover reserve obligations
- LADWP & GWP continue to meet re possible long term future transmission projects



Clean Energy Status



Current Local DER Initiatives

- 2019 IRP relies upon **50 MW** of Local Clean Energy Resources
- Energy Efficiency (0.2 MW of 8.3 MW procured)
- Demand Response (2.08 MW of 10 MW procured)
- Local PV Solar
 - Sunrun Virtual Power Plant offer withdrawn (loss of 25.25 MW)
 - GWP solar on City properties
 - 20 MW of estimated capacity
 - 1.2 MW planned for current FY Budget



Pursuing More Local DER in 2022

- GWP needs new DER in addition to Grayson
- Clean Energy DER RFP issued May 27
 - Proposals due September 30
 - Final Selection January 2023
- Collaboration with EcoMotion
 - To lead Clean Energy DER RFP evaluation process
 - “Beating the Bushes” for other viable DER options



Grayson Repower Updates



Grayson Repower Permitting Status

- Demolition Clearance Application – approved by Historic Preservation Commission
- Alternative 7 air permit - being reviewed by SCAQMD
- SCAQMD Rule 1135
 - **December 31, 2022 – Application deadline**
 - Unit 9: Application being prepared
 - **December 31, 2023 – Units 1-8 will not be in compliance and be shut down**



Grayson Repower Procurement Status

- Unit 9 Separation – received one bid on June 29, 2022
- Demolition/Site Improvement - proposals due October 28, 2022
- Tesla EPC contract negotiation – nearly completed
- Wartsila LNTP Phase 2 contract negotiation – completed
- Wartsila EPC contract - on hold pending Council decision on engines
- “Balance of Site” EPC RFP - being prepared
- Working on procuring energy and capacity for repower period



Project Costs Are Escalating

- Current forecast is \$493 million in direct costs
- Tesla pricing has increased 45%
- Wartsila pricing has increased 27%
- Further increases likely given inflation, lithium pricing, currency risk
- Interest rate increases will result in higher bond costs
- Supply chain issues are causing both cost and schedule issues
- These issues are not unique to Grayson



Today's Decision Points



Unit 9 Separation

- First step in the repower process
- 3 potential bidders at site walk, received 1 bid
- Bid not technically compliant -- supply chain issues
- Recommend rejecting bid, authorizing negotiation of contract
- \$4,247,507 plus 10% contingency, total \$4,672,257



Alternative Project Delivery Method: Balance of Site Work

- Interface with GWP, Tesla, and Wartsila – “glues” it together
- First to mobilize, last to demobilize
- Engineer, Procure, Construct (EPC) method
- Competitive RFP procurement



Wartsila Limited Notice to Proceed Phase 2

- Achieves overall 60% design
- Does not include any procurement
- If less than 5 engines are selected, re-work will be required
- Recommend awarding contract
- \$9,882,000 plus 10% contingency, total \$10,870,200



Professional Services Agreements

- Stantec
 - \$164,000 including contingency
 - Environmental support including air permitting
- Black & Veatch
 - \$1,570.668 value plus 10% contingency, total \$1,727,735
 - Owner's Engineering services
- Clean Power Consulting Partners
 - \$150,000
 - Additional Project Management and technical consulting



Summary

- LADWP has confirmed GWP must be self-sufficient
- A local, reliable, dispatchable source of energy is required to keep the lights on in Glendale
- GWP is pursuing additional Distributed Energy Resources, but cannot rely upon local DER as a complete solution
- GWP Commission supports Grayson Repower
- Delayed Wartsila decision adds time, cost, complexity, and risk
- Project costs going up; 2 bond processes adds additional cost
- Provide direction re Wartsila units vs stay the course (Modified Alt. 7)



Questions?



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