LA100 Report Card Update

September 1, 2022

Agenda Item 11

(PRESENTATION: POWER SYSTEM - JAMES BARNER)

Council File No. CF 21-0352 - Los Angeles Department of Water and Power report relative to a report card on the Strategic Long Term Resource Plan that achieves 100 percent carbon-free energy by 2035; and related matters.

LA100 Report Card

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September 1, 2022

Strategic Long-Term Resource Plan (SLTRP)

100% Carbon Free by 2035

Maintain Reliability and Resiliency | **Prioritize Environment and Equity** | **Minimal Adverse Impact on Rate Payers**

City Council Resolution (September 1, 2021) File No. 21-0352

1) Instructs SLTRP to achieve 100% carbon free by 2035 (equitable and minimal adverse impact on ratepayers)
2) Prioritize equity in SLTRP for EJ communities. Ensure no increase in emissions at EJ communities.
3) Report on “no-regrets” projects, accelerated pathway, and “shovel-ready” projects
4) Report on community engagement strategies
5) Six-month report card to ECCEJR, including challenges and barriers

LA100 Bi-Annual Report Card

- Second edition report card for Sept 2022
- Very high level overview of a very complex subject
- Welcome further feedback and suggestions for improvement

STRATEGIC LONG-TERM RESOURCE PLAN (SLTRP)

100% Carbon Free by 2035

Maintain Reliability and Resiliency | **Prioritize Environment and Equity** | **Minimal Adverse Impact on Rate Payers**

- **Key Progress Updates**
  - Red Cloud Wind (in-service Dec 2021)
  - Integrated Human Resource Plan (IHRP) (Q3, 2022)
  - SLTRP (Q3, 2022)
  - LA100 Equity Strategies (underway and on-schedule for 2023 completion)
  - Comprehensive Affordable Multifamily Retrofits (CAMR) (launching spring of 2022)
  - Advanced Metering Infrastructure pilot project underway
- **Risks to Implementation Schedule**
  - **On Track:**
    - Renewable Portfolio Standard (RPS)/Energy Storage (ES)
  - **Medium Risk:**
    - Transmission
    - Generation Station (GS) Modernization Efforts
    - Distributed Energy Resources
    - Electric Vehicles – EV Charging
  - **High Risk:**
    - Distribution System

LA DWP Los Angeles Department of Water & Power

LA100 Study Outcomes

LA100 Study was completed and final report was released on March 24, 2021.

- 100% renewable energy is achievable through multiple pathways
- Building and transportation electrification key to affordability
- Investment of approx. $57-87B **in addition to existing obligations** (e.g. PSRP)
- Significant job creation (9,500 jobs)
- We can achieve 100% by 2035

- **There are common investments across all pathways to 100%**

LA100 Investments

Electrification
Efficiency
Flexible Load

Customer
Rooftop Solar

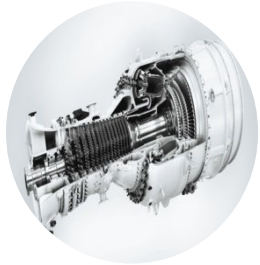
Renewable
Energy

Solar: + >5,700 MW
Wind: + >4,300 MW

Storage

+ >2,600 MW

Transmission,
Distribution



Renewably Fueled
Dispatchable
Turbines

+>2,600 MW
(in basin)

Much More

Natural Gas → Biofuel/ Hydrogen	
Today: Daily	**Future:** Infrequently

LA100

ACHIEVING 100% RENEWABLE ENERGY IN LOS ANGELES

LA DWP

LA100 Study

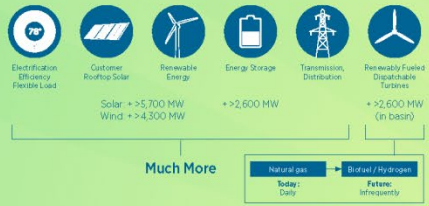
Completed

Unprecedented analysis ID'd multiple paths to achieve 100% target

Considers reliability, equity, sustainability and affordability

- Confirmed 100% by 2035 achievable
- Community & stakeholder input

Common Investments Across All Scenarios



LA100 Equity Strategies

Fall 2021-23

Community-driven, objective to achieve equity

Robust community engagement

Areas of Focus

- Improve air quality
- Solar access
- Energy Efficiency
- Affordable rates
- Demand management
- Debt relief
- EV charging access

2022 SLTRP

Fall 2021-2022 | 2035 & 2045 Targets

Our comprehensive integrated power plan

Recommends path forward to achieve our goals

- Integrates findings of LA100
- Community & stakeholder input
- Prioritizes reliability, resiliency, equity, affordability, sustainability

Considerations

- Workforce
- Building, Operating & Maintaining
- Cost to customers
- Supply Chain Risk
- Implementation and Feasibility

100% Carbon-Free by 2035

LA100 Study complete and final report was released on March 24, 2021.

On April 19, 2021, in the State of the City Address, Mayor Garcetti announced LADWP would adopt a goal to be **100% carbon-free by 2035** as well as:

- Provide energy mix that is 80% renewable and 97% carbon free by 2030
- Transition Scattergood to run on green hydrogen
- Decrease demand on Valley Generating Station
- Green hydrogen at IPP

In September 2021, **City Council** instructed LADWP to prepare a resource plan that achieves 100% carbon-free energy by 2035, in a way that is equitable and has minimal adverse impact on ratepayers

LA100 Next Steps – Progress to Date

80% Renewable by 2030

Red Cloud Wind: 331 MW in-service Dec 2021
Eland Solar + Storage: 2023 commercial operation
Local Solar: 602 MW in-service to date

Transmission

Toluca to Hollywood Line 1 permitting in process
Tarzana to Olympic Line 1 permitting in process
Biweekly Implementation Meetings

Local Generation

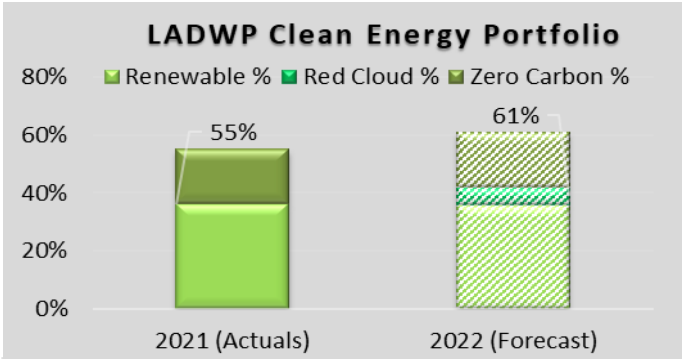
Green hydrogen Request for Information (RFI) issued
Scattergood hydrogen capacity and **Haynes recycled water**
Seeking external funding opportunities for green hydrogen

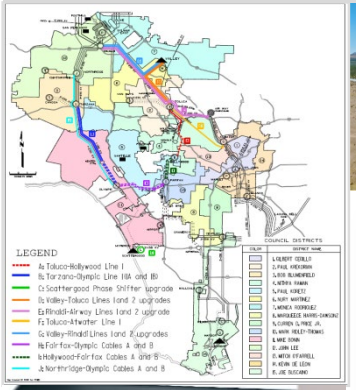
Energy Storage

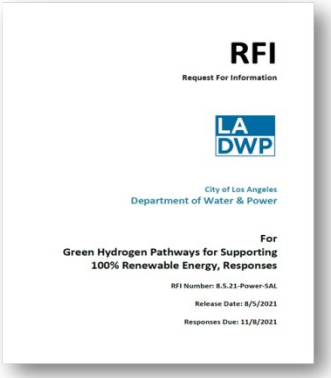
Installed or contracted **333 MW of energy storage for 2023**
Maximize use of solar + storage **Investment Tax Credits**
Scattergood energy storage conceptual plans

Equitable DERs

LA100 Equity Strategies Study on-going through 2023
Expanded **Feed-in Tariff** from 150 MW to 450 MW, advertised **DER RFP**, launched thermostat **demand response** program

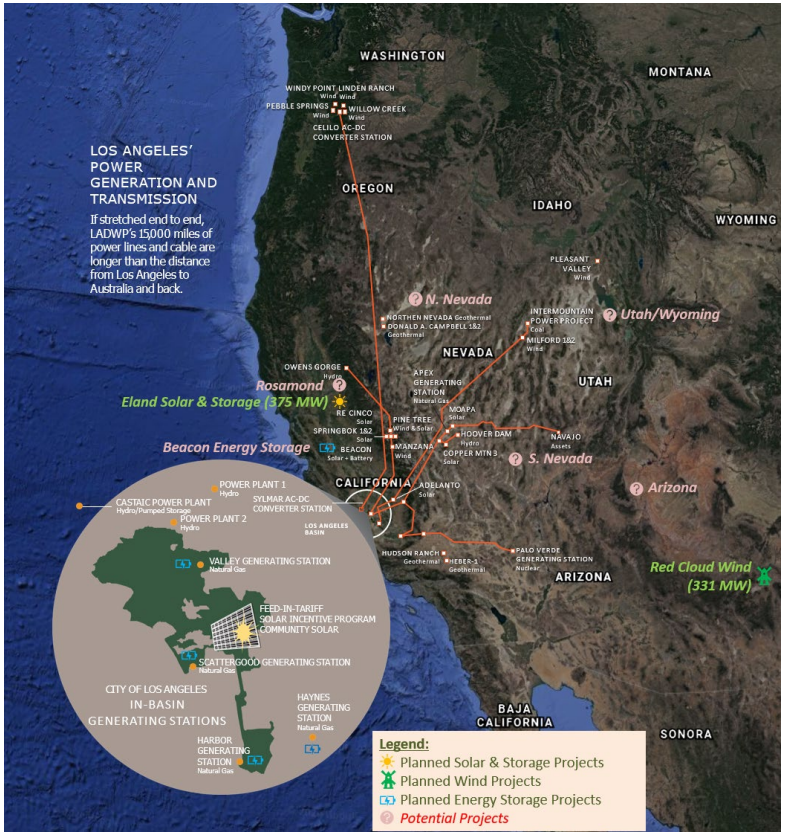






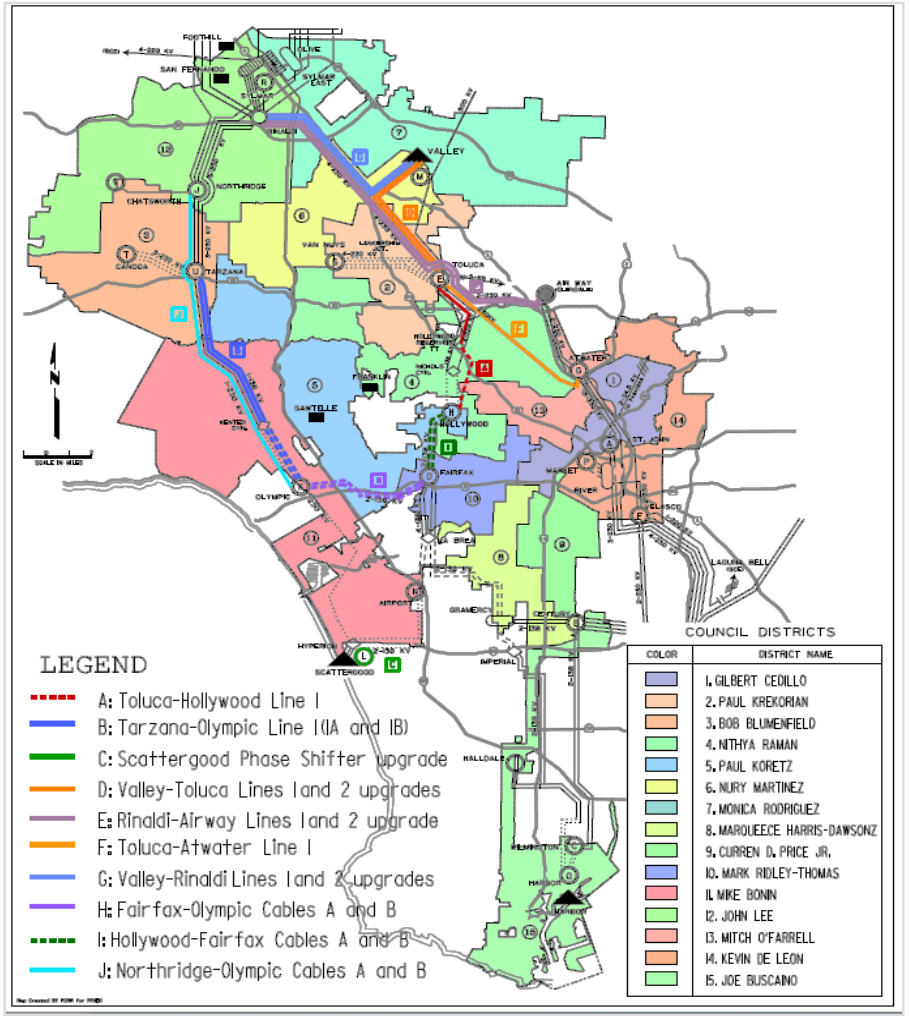
Accelerate Renewables and Energy Storage

- Deploy 3,000 MW of new renewable energy projects by 2030 to reach 80%
- Leverage significant existing transmission and upgrade local transmission
- Eland Solar + Storage 400 MW solar 1,200 MWh storage in 2024 ($1.5B)
- Red Cloud Wind 331 MW ($1.1B)
- 3 projects under negotiation
- Expecting significant increase in proposed storage projects due to Inflation Reduction Act tax incentives



Accelerate Local Transmission

- Accelerate expansion of local transmission capacity to bring renewable energy where it is needed
- Actively advocating for permit streamlining
- 10 of 19 total projects
- Report card list projects underway now

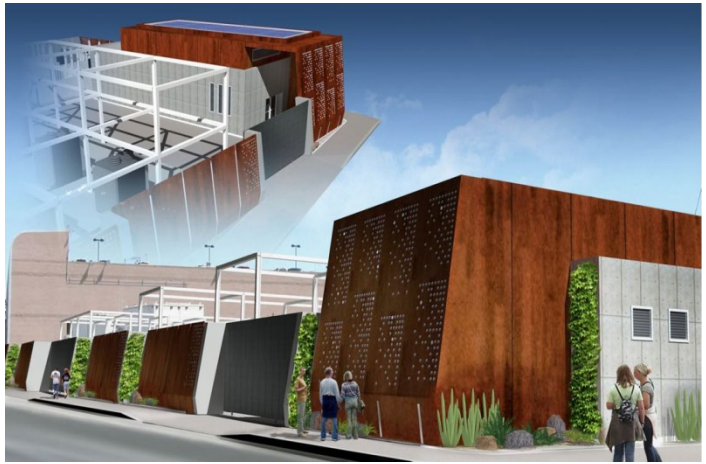


Transform Local Generation

- **System reliability and resiliency.** LA100 study shows need for renewable in-basin capacity at all generating stations, in all scenarios.
- Green Hydrogen efforts under way with completion of RFI
- Funding opportunity from **Bipartisan Infrastructure Law** for Green Hydrogen
- Scattergood Green Hydrogen
- Haynes Recycled Water Cooling Retrofit

Distribution Investments

- Capacity Needs for Electrification
  - Over 650 MW Receiving Station capacity shortfall by 2040
  - Over 800 MW of Distributing Station capacity shortfall by 2040
  - Need to build/expand at minimum 10 new stations by 2040
  - **In the last 20 years LADWP has built four stations**



- Hundreds of Stressed Distribution Assets
  - A third of all feeders (>500 distribution lines) are over capacity
  - **Existing replacement targets need to increase several fold**

LA100 Study –

Maintaining low rates requires high electrification

Accelerate DERs Equitably

Local Solar

- **Expanded FiT** from 150 MW to 450 MW
- **Record Rooftop Solar Adoption**: In the last 18 months, ~23% of the total installed NEM capacity; total local solar: ***602 MW***
- **Green Access Program** for commercial renewable access Board approved, up for Council consideration

Community Solar & Energy Efficiency

- **Shared Solar Low Income** program expansion under development for multifamily access
- **Launched VNEM Pilot Program** to expand multifamily access
- **Community Resiliency Program** under way with Green Meadows Microgrid under construction
- **LA100 Equity Strategies** launched
- **Comprehensive Affordable Multifamily Retrofits (CAMR)** launched

Energy Storage & Demand Response

- **Launched FiT+** allowing energy storage; pilot expansion under way
- **Expanded Power Savers** (residential DR program); increased from 25 MW to 35 MW with ~40k customers; 2023 expansion underway

Comprehensive Affordable Multifamily Retrofits (CAMR)

Free property assessments to identify efficiency opportunities to help owners and their residents to save energy and reduce costs.

- Consist of five or more units
- At least 66% of households at or below 80% of AMI and in a Disadvantaged Community (DAC)
- Install energy improvements that equate to at least 10% in energy savings
- Prevailing wage, skilled and trained workforce, and licensing requirements

Launched on May 1, 2022

- Interest Forms Received: 30
- Active Projects Number of Properties: 59 Properties
- Active Projects Number of Tenant Units: 3,326 Tenant Units
- Program Budget: $75 million over 5 years

Thank you