



Y20 – Compound Load Impacts

June 26, 2023

Katie Rogers
Senior Engineer

Proposed Timeline

Task	Time Frame	Lead Responsibility
Complete assessment scope	Jan	Advisory Group
Build Y20 foundational case	Feb - May	WECC Staff, Advisory Group
Research and gather data	Feb – May	WECC staff, Advisory Group
Create adjusted load profiles and other inputs for each PCM run	May – Jun	WECC staff, Advisory Group
Run and Review PCM for each case	Jul	WECC staff, Advisory Group
Identify major findings and conclusions	Aug	WECC staff, Advisory Group
Draft report	Sep	WECC staff
Review and comment on draft report	Oct	Advisory Group
Complete final review	Nov - Dec	WECC staff
Publish final report	Feb	WECC staff

Scope

- Base model – Y20FC
- Electrification
 - Buildings & Transportation
- Demand Response
 - Redistribute load (vs limited peak shaving programs)

Y20CLI Assumptions

Loads	Resources	Prices	Transmission
Magnitude	Capacity	Fuels	Path Ratings
Grow out using research, benchmark against other cases	Y20FC no change	Y20FC no change	Y20FC no change
Shape(s)	Shape(s)	PTCs	Losses
Adjust based on research and other cases	Y20FC no change	Y20FC no change	Y20FC no change
	Demand Response	Emissions	
	Represent programs & technology	Y20FC no change	

Report Approach

- Model Observations
 - Increased amounts of Electrification
 - Shock magnitude and shape of demand, are there any reliability concerns?
 - Conformity of charging through programs/technology
 - Adjust demand via DR, does it relieve any reliability concerns?
- Educational
 - Existing and proposed local, regional, state, federal policies
 - Demand response types

Y20CLI Status

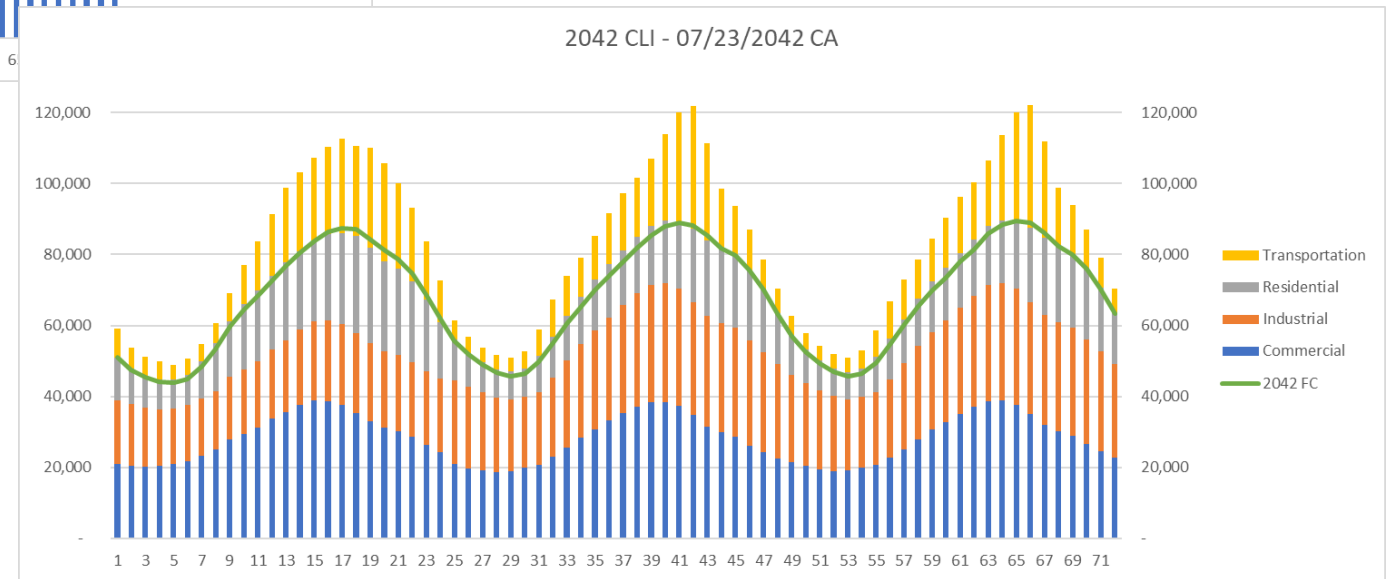
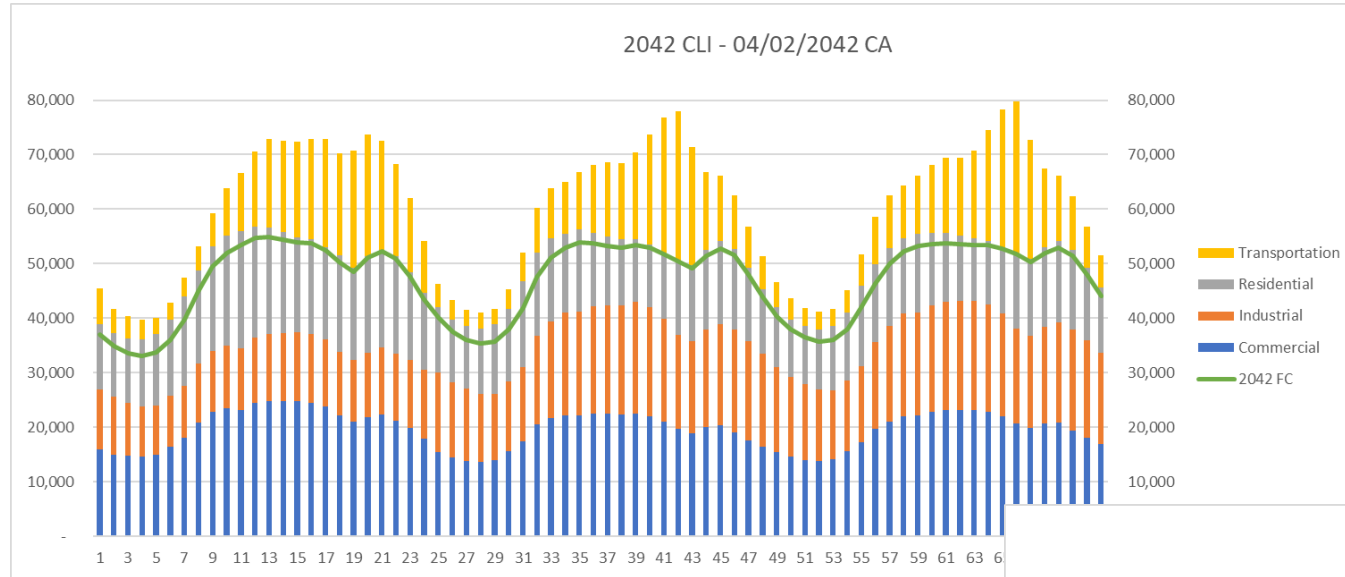
Assumptions & Data Collection

- Electrification
 - Base load shapes created
 - Referencing NREL 2022 Standard Scenario – high electrification case & NREL Electrification Futures Study
 - Will update for current & proposed policies by state

Model Building

- Waiting on Y20FC

CLI Load Shape Examples



What's Next

Next Steps

- Adjusting hourly load profiles based on policies
- Setting up scenarios
 - Magnitudes of electrification with business-as-usual demand shape
 - Demand shape changes due to demand response assumptions
- Drafting report



Electric Reliability and Security for the West

www.wecc.org