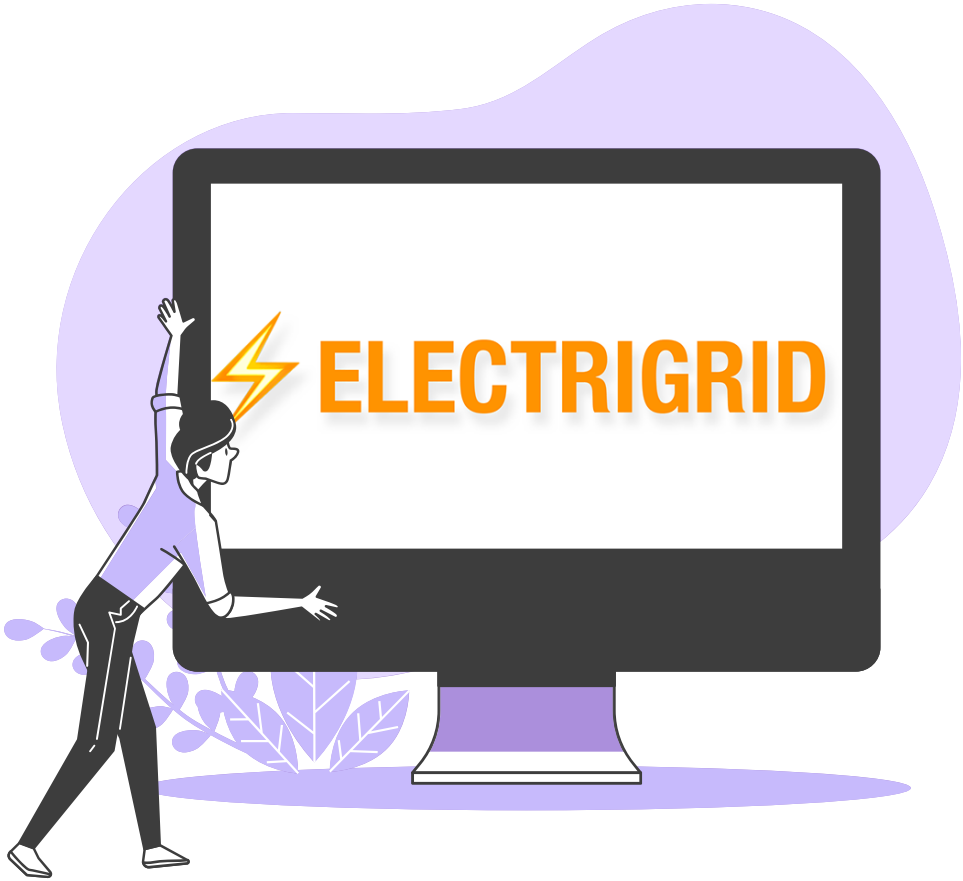


Client Report

Presenters:
Danny Wang, Ruyun Qi

Introduction

Communication 13

Cost

300 + 80 x^0.9

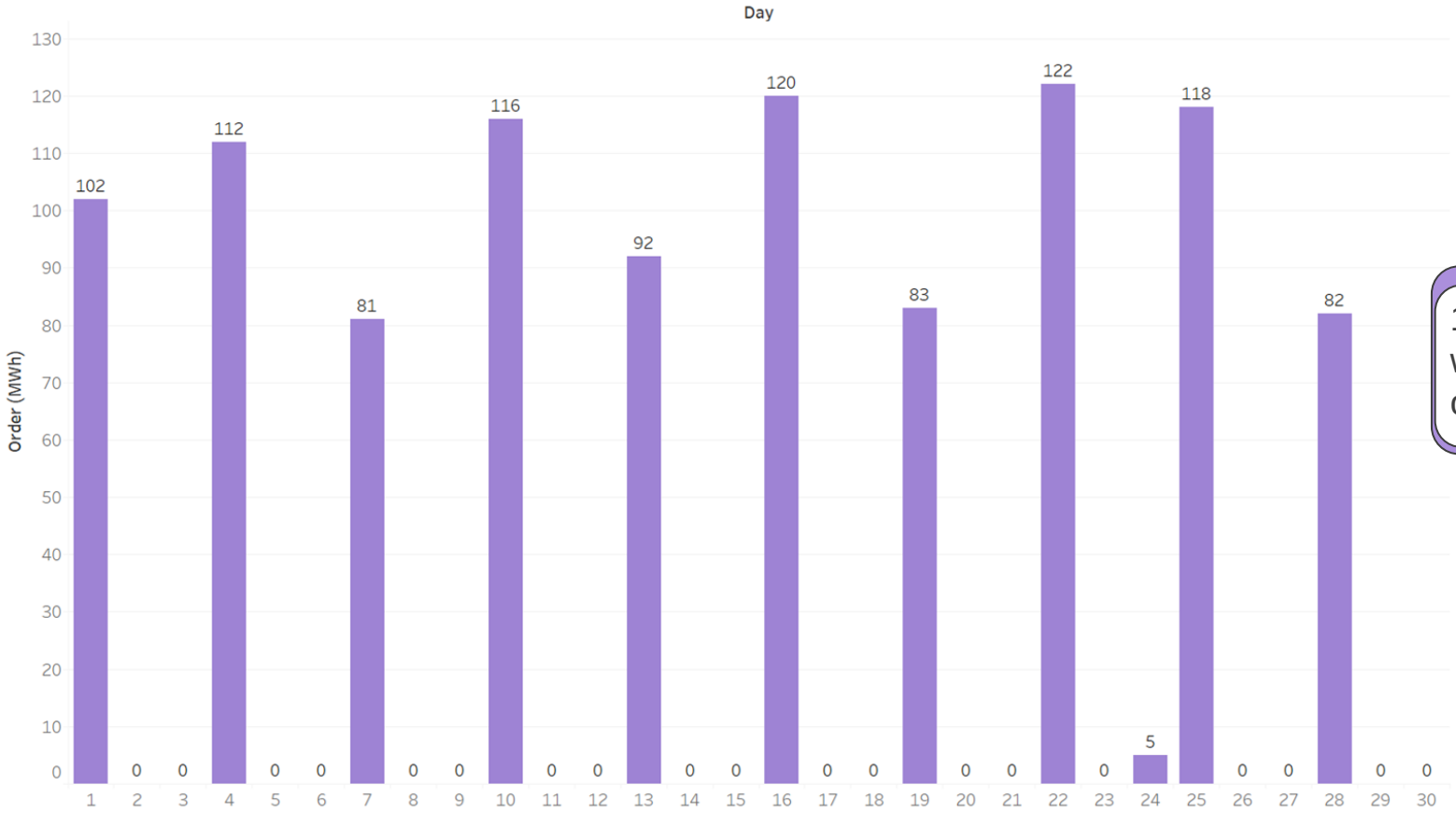
Daily Demand

31, 32, 39, 32, 36, 25, 33, 33, 34, 36, 36, 28, 28, 47, 33, 40, 41, 27, 37, 29, 29, 42, 49, 36, 38, 32, 29, 32, 27, 42

Battery

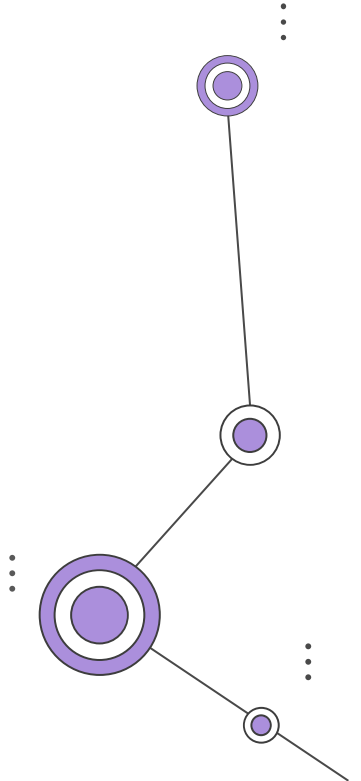
80 MWh

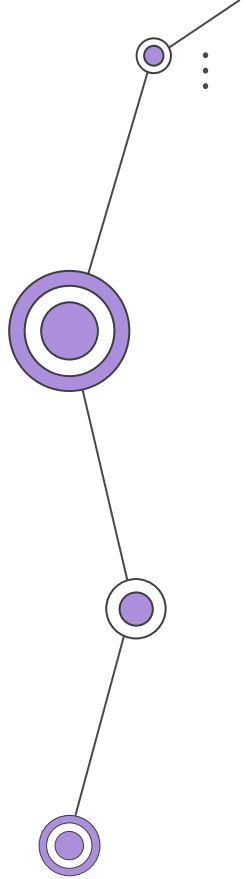
Daily Electricity Order for June



19 days with 0 order

Solution





$55329.57

Expected Total Cost

Communication 14

60%

Normal Demand

31, 32, 39, 32, 36, 25, 33, 33, 34, 36, 36, 28, 28, 47, 33, 40, 41, 27, 37, 29, 29, 42, 49, 36, 38, 32, 29, 32, 27, 42

40%

High Demand

54, 57, 65, 54, 59, 45, 58, 54, 52, 66, 55, 44, 49, 83, 59, 66, 68, 49, 62, 54, 53, 79, 82, 61, 65, 53, 47, 51, 50, 65

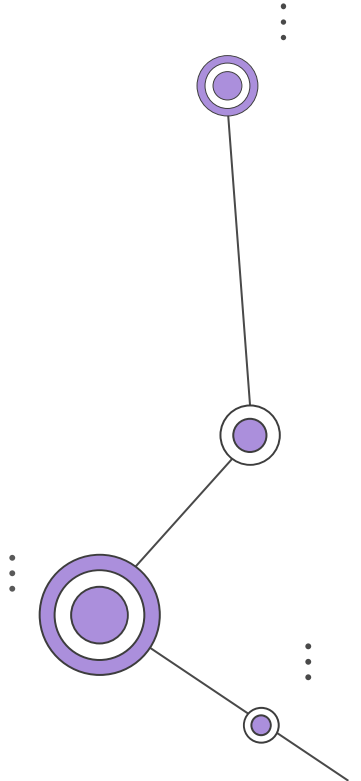
Solution

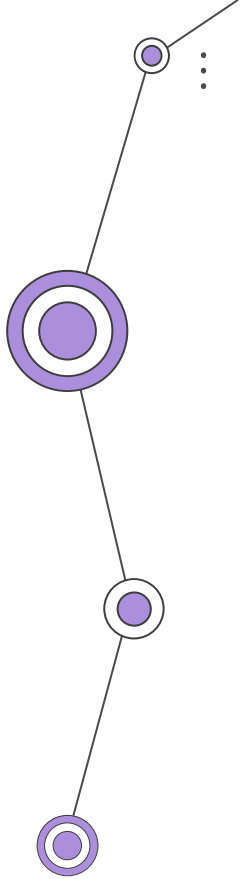
$73593.87

Expected Total Cost

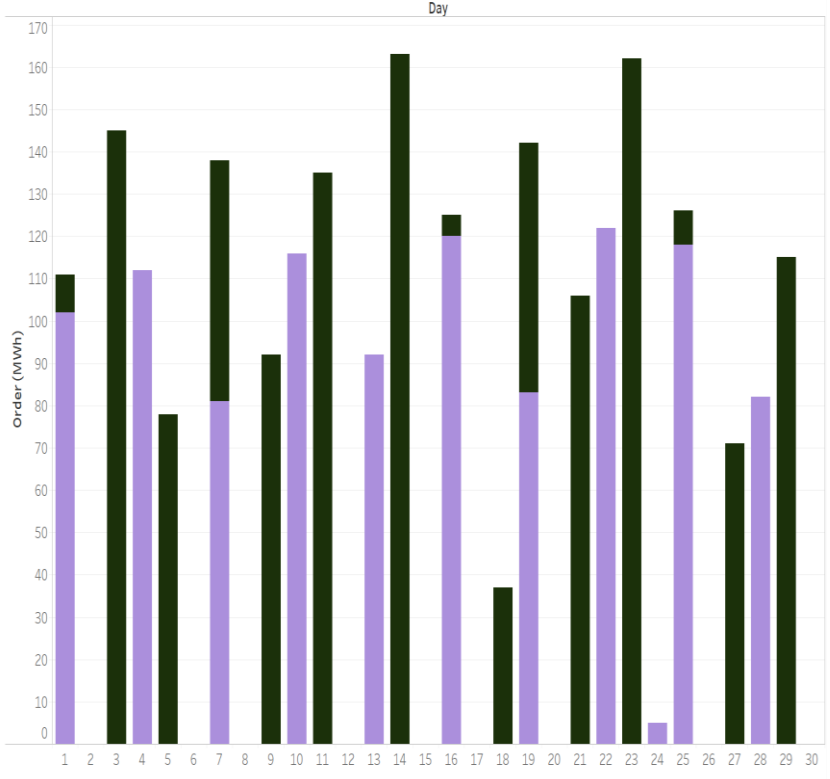
111 MWh

Initial Order

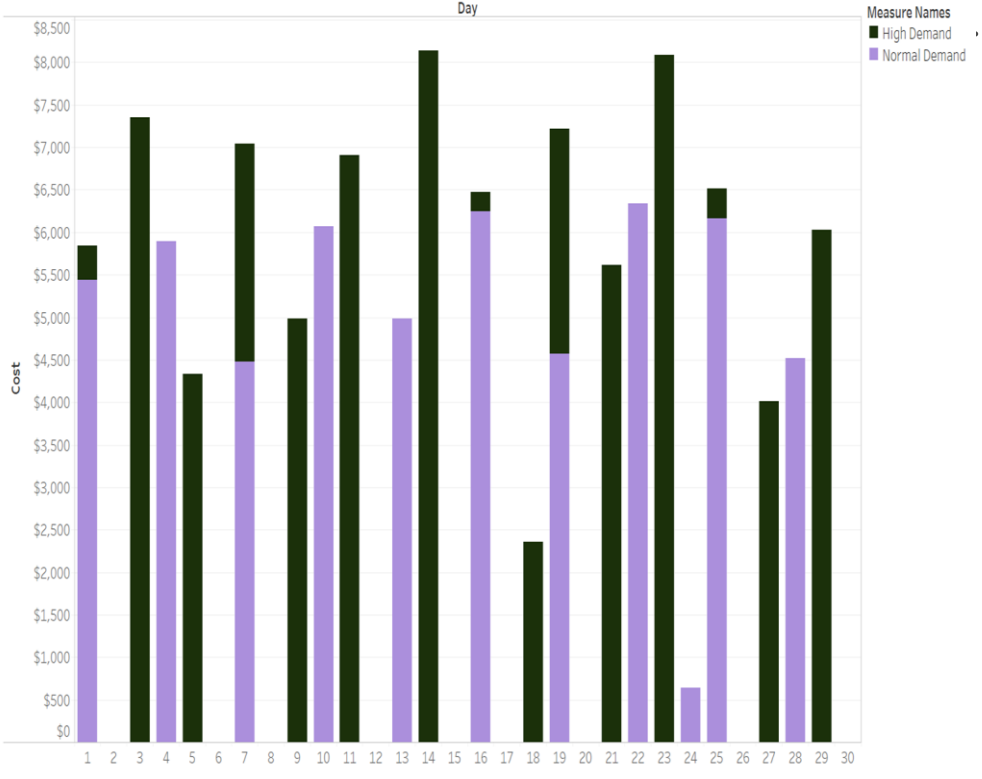




Daily Electricity Order

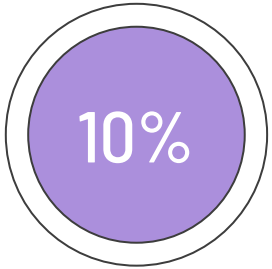


Daily Cost



Communication 15

Reduce the chance of high demand



Chance

Days

90% chance of normal demand

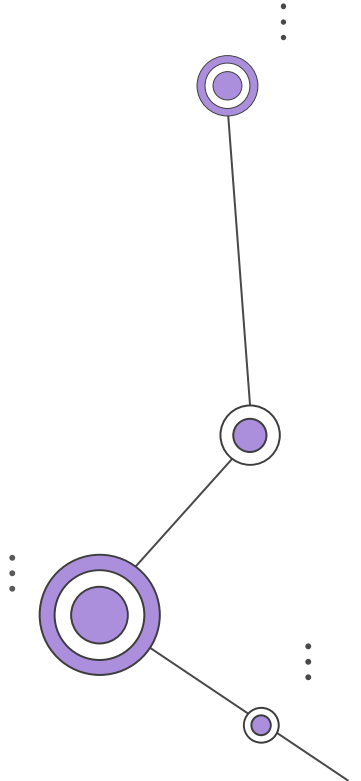
Solution

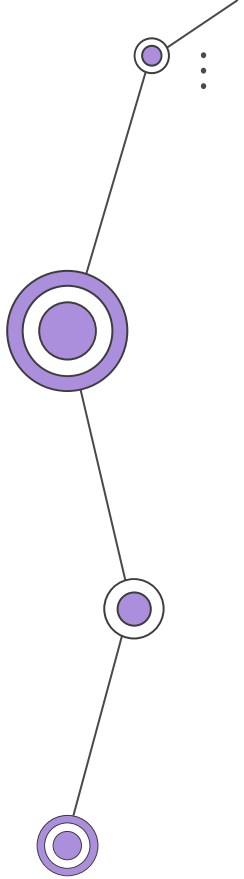
$70901.46

Expected Total Cost

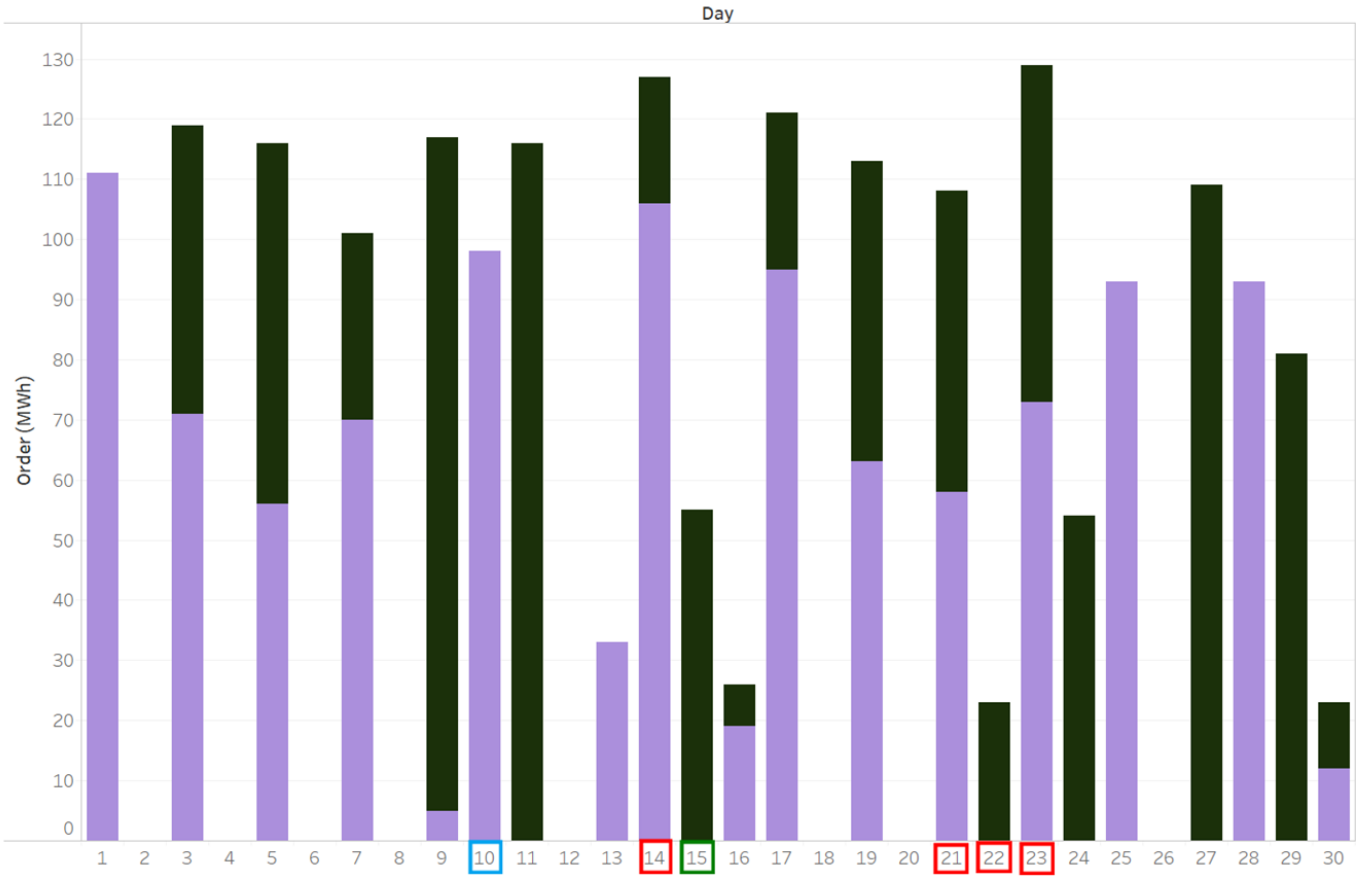
$2500+

Cost Saving





Daily Electricity Order



Reduction days based on surplus electricity storage

Blue: reduction day only for normal demand

Green: reduction day only for high demand

Red: reduction day for both normal & high demand

Note: 5 days for each demand storage in June

Communication 16

If high demand for previous day

If normal demand for previous day

10% high demand chance for 5 days still works,
regardless whether it is high or normal demand the previous day

Solution

$65601.65

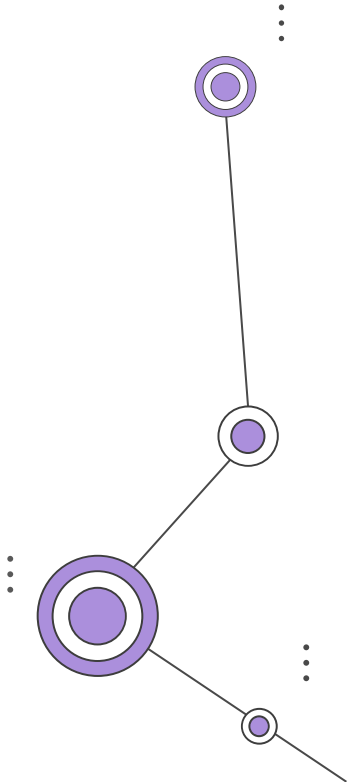
Expected Total Cost

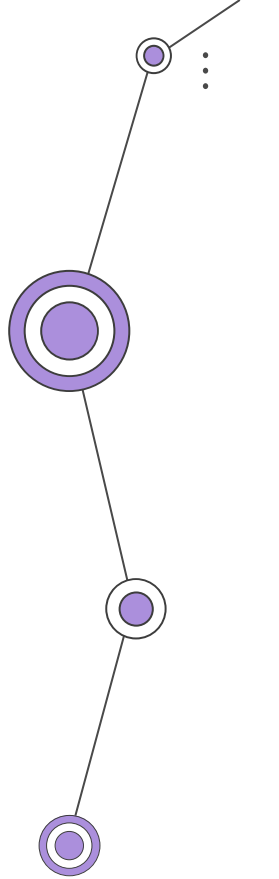
$5300

Cost Saving

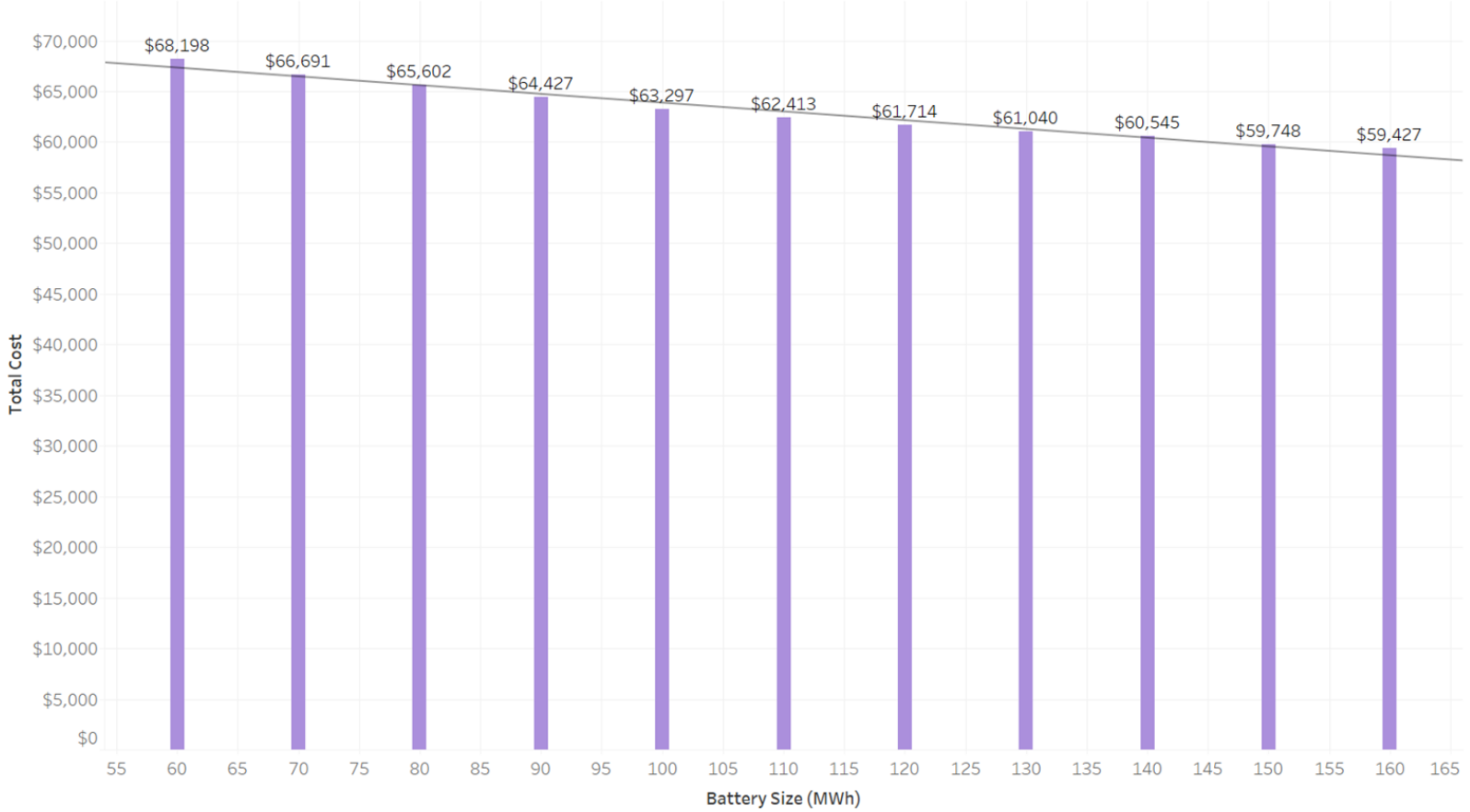
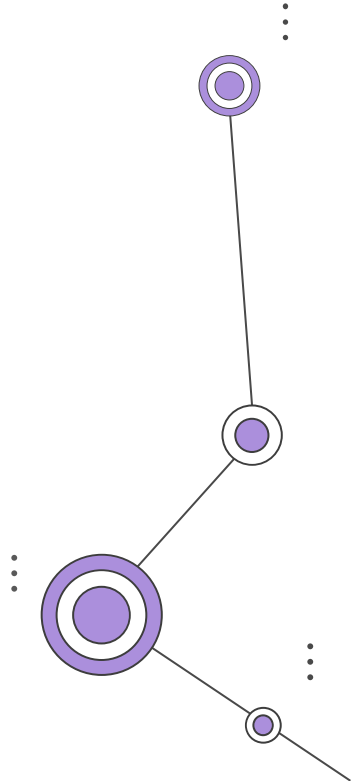
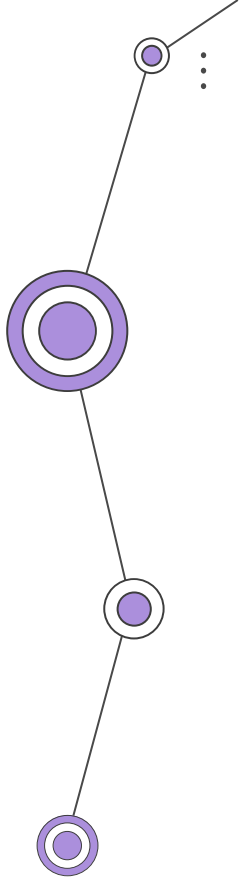
111 MWH

Initial Order





Battery Size vs. Total Cost



Thanks!