

**Anton Anderson Memorial (Whittier) Tunnel - Back-up
Generation for Normal Operations**

**FY2015 Request: \$1,800,000
Reference No: 58612**

AP/AL: Allocation

Project Type: Construction

Category: Transportation

Location: Whittier

House District: Kodiak/Cordova (HD 35)

Impact House District: Kodiak/Cordova (HD 35)

Contact: Jeff Ottesen

Estimated Project Dates: 07/01/2014 - 06/30/2021

Contact Phone: (907)465-4070

Appropriation: Surface Transportation Program

Brief Summary and Statement of Need:

This project will upgrade the current emergency power capabilities and establish full backup power for sustained normal tunnel operations during emergencies and prolonged power outages.

Funding:	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>FY2018</u>	<u>FY2019</u>	<u>FY2020</u>	<u>Total</u>
Fed Rcpts	\$1,800,000						\$1,800,000
Total:	\$1,800,000	\$0	\$0	\$0	\$0	\$0	\$1,800,000

<input checked="" type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
9% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

No prior funding history

Project Description/Justification:

There is currently enough standby power to operate most cameras, some lighting, and the ventilation fans for the safe-houses; but not to sustain normal tunnel operations. In the event of an emergency or prolonged power outage tunnel operations are hampered and traffic backs up very quickly. The tunnel is an important link to an ice free port, if the ports on the eastside of Cook Inlet were to become inoperable, Whittier with the rail/highway would become a critical feature of importance to sustain the supply chain for south-central Alaska.

Additional information:

The tunnel only needs to be purged of accumulated CO after a loaded freight train travels from Whittier to Bear Valley and on cruise ship days after the passage of four passenger trains and 40 to 60 busses. It takes 10 to 25 minutes to purge the tunnel of carbon monoxide for the loaded freight trains.

The time it takes to purge the tunnel is also dependent on the number of jet fans and portal fans that can be used. Due to the high demand cost of using power portal fans, only one portal fan is used at a time. It may be economically feasible to use the backup generators to run more portal fans and run them more often to reduce the time it takes to purge the tunnel. The time required to clear the staging areas and schedule recover from the transit of a freight train from Whittier to Bear Valley can be

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reduced by increasing the rate that the vehicles are allowed into the tunnel without compromising safety.

During a power outage, the existing backup generators lack sufficient power to run the jet-fan ventilation system. During these periods, 15-car platoons are escorted by fire truck through the tunnel. The Alaska DOT/PF has funded a project to install emergency backup generators.

Also the new backup emergency generators can be used to power the portal fans. This will allow the portal fans to be used more often and reduce the time it takes to purge the tunnel after a loaded freight train has transited the tunnel.