



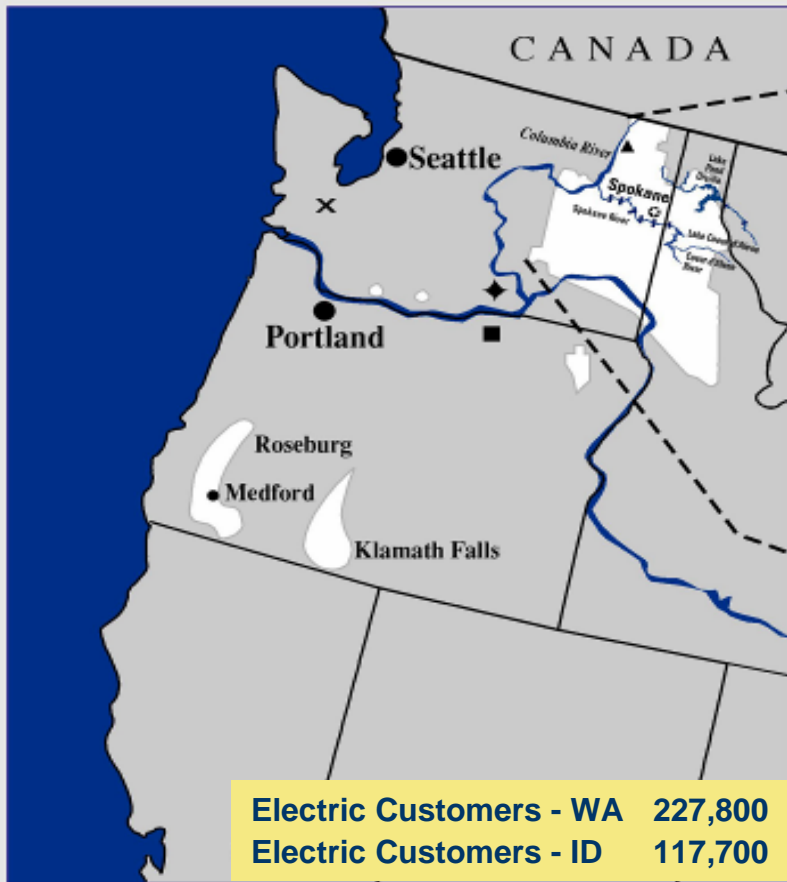
Washington Utilities and Transportation Commission

Utility Preparation, Response and Recovery Public Workshop

February 8, 2007

Don Kopczynski
Vice President, Operations





Transmission:	
230kV (miles)	625
115kV (miles)	1,539
Distribution:	
Miles	11,039
Feeders	316



December 2006 windstorm highlights

Power outages:

- 112,954 Avista customers lost power (Dec. 14 – 19)
- 33 percent overall impacted
- 54,456 at height of storm
- Within 12 hours: 50 % restored
- Within 24 hours: 70 % restored

Transmission damage:

- 185 active 115 kV lines
 - 14 lines down
- 28 active 230 kV lines
 - 4 lines damaged
- Power restored / re-routed



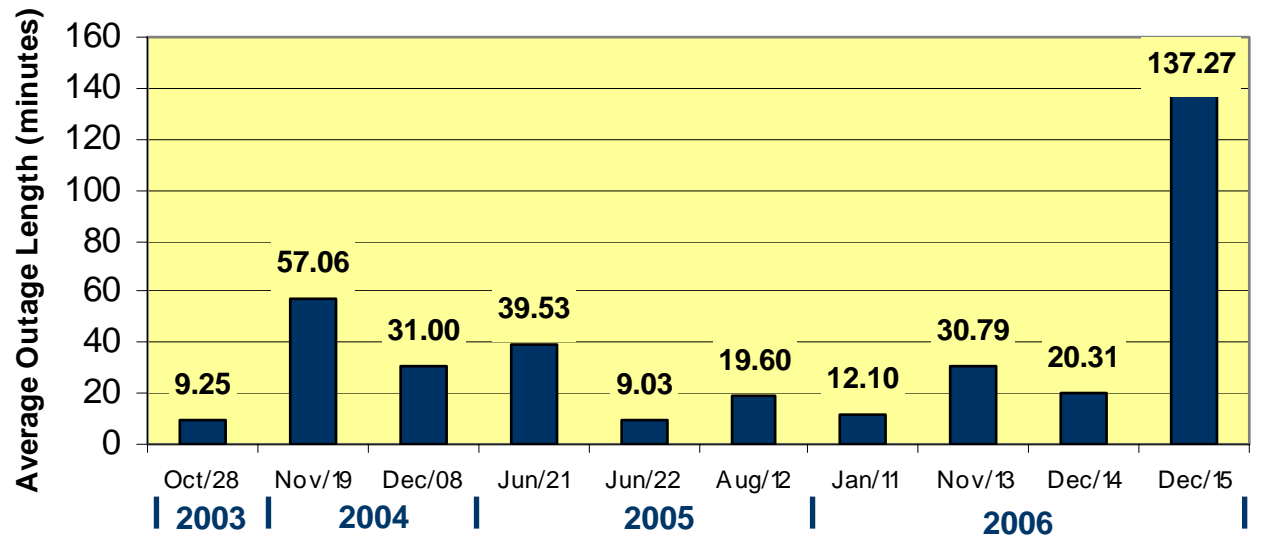
What made the difference?



Investments since Ice Storm 1996

- Transmission upgrades
- Customer automated system
- Technology to manage outages

Major Storms 2003 - 2006



Avista transmission upgrades



Benewah steel poles installed
October 2006

2004 Beacon-Rathdrum (25 miles)

- 188 steel towers rebuilt a 1952 wood pole transmission line

2005 Boulder Substation (18 miles)

- 230 and 115 kV transmission lines converted from wood to steel

2006/07 Benewah-Shawnee (60 miles)

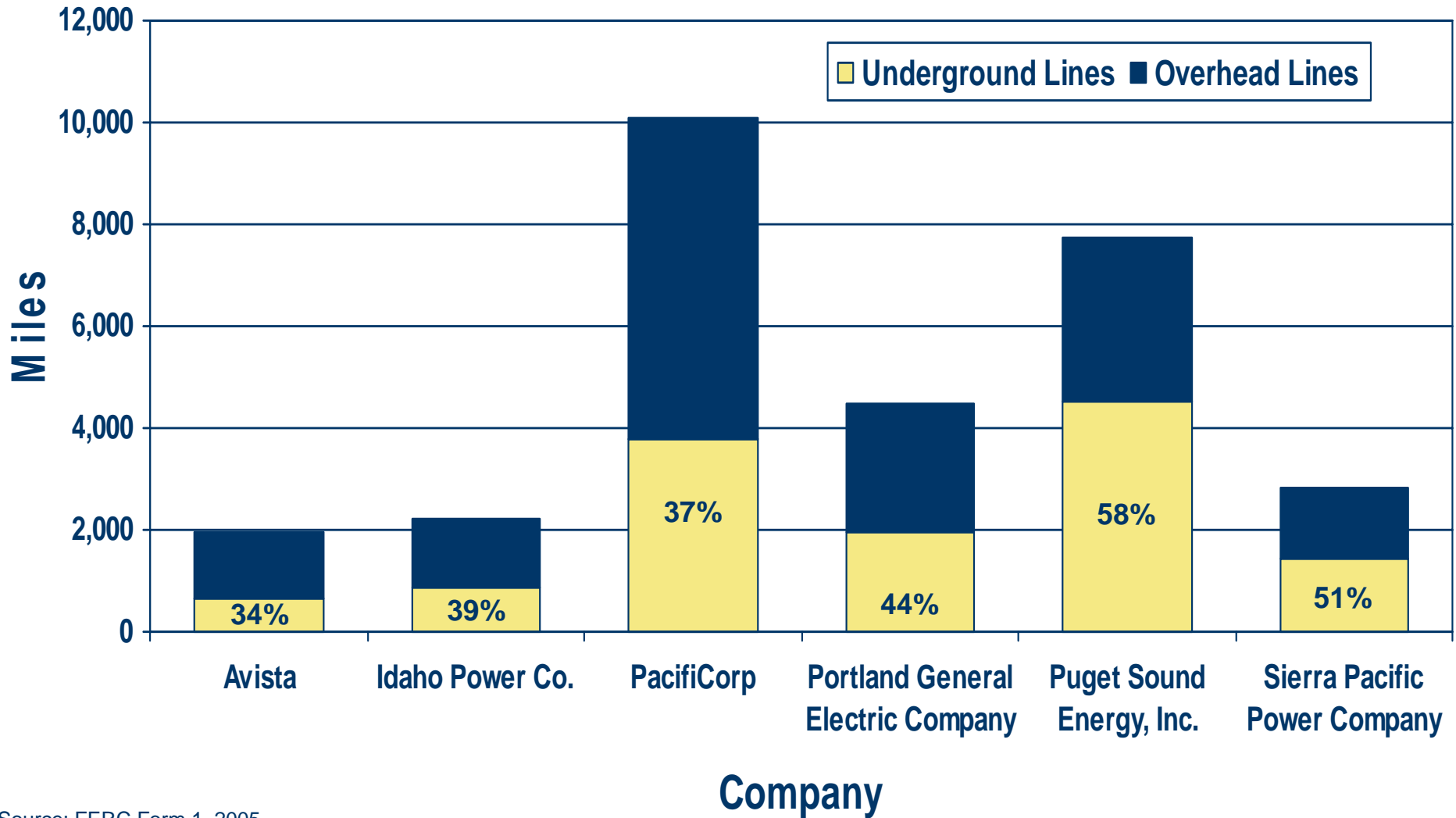
- 392 steel towers to replace a 60 year old wood pole transmission line

Keeping Avista's power lines clear

- Outage prevention
- Public safety
- Five year plan
- 2006 WA expenditures:
 - \$3.6 million



Overhead / Underground distribution lines



Source: FERC Form 1, 2005

Overhead –vs– Underground

Overhead

Underground

Costs

- 15 kV: \$31,000 / mile
- Cost to convert:
 - \$0.5M to \$5.5MM

- 15 kV: \$100,000 / mile
- 115kV: 4 - 15X overhead

Reliability

- Average restoration time: (4:57)
- Average outage frequency: (1.24)

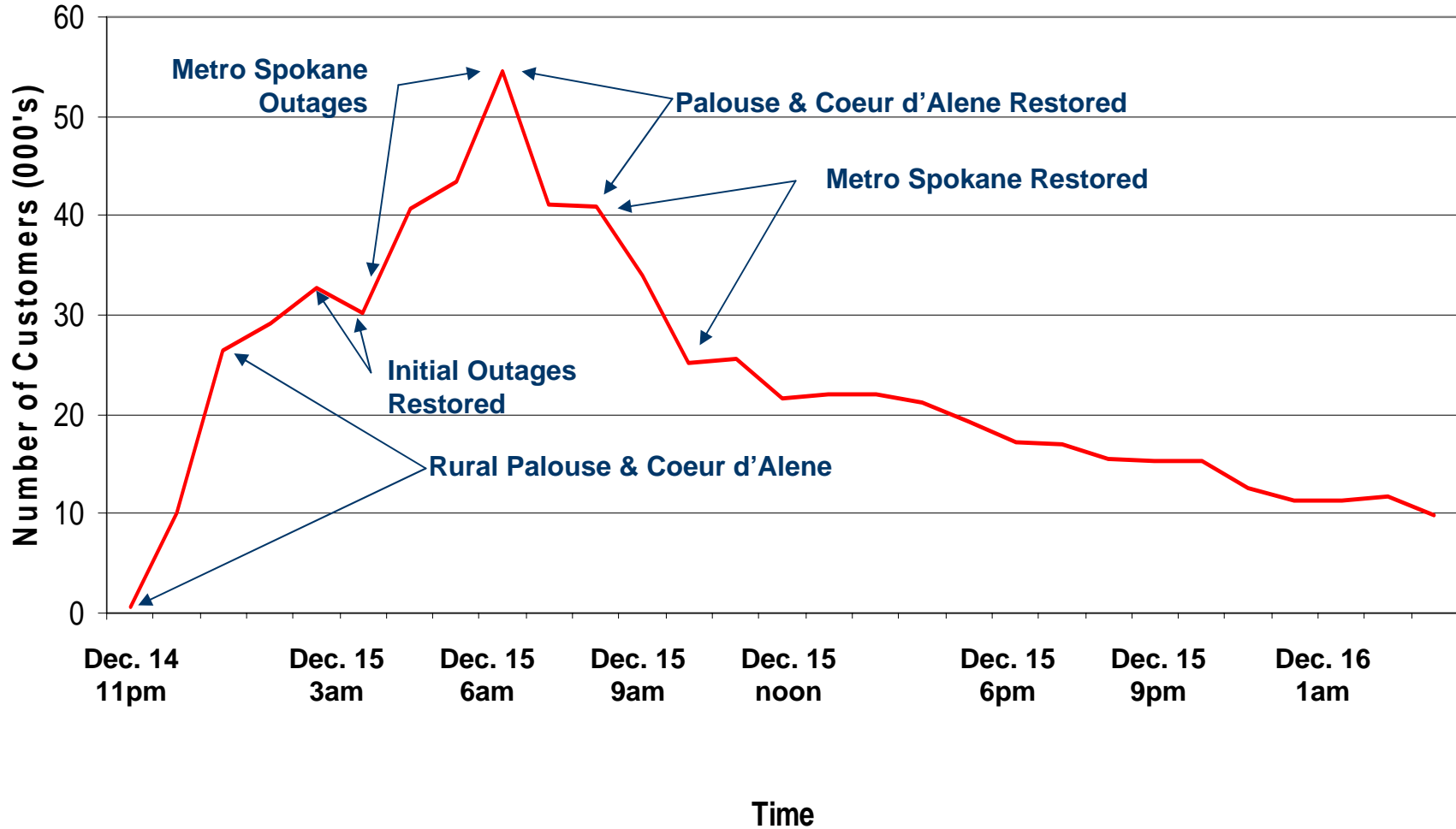
- Average restoration time: (7:56)
- Average outage frequency: (0.54)

Expected Life

- 70 Years

- 20 – 30 years

Avista outage and restoration timeline



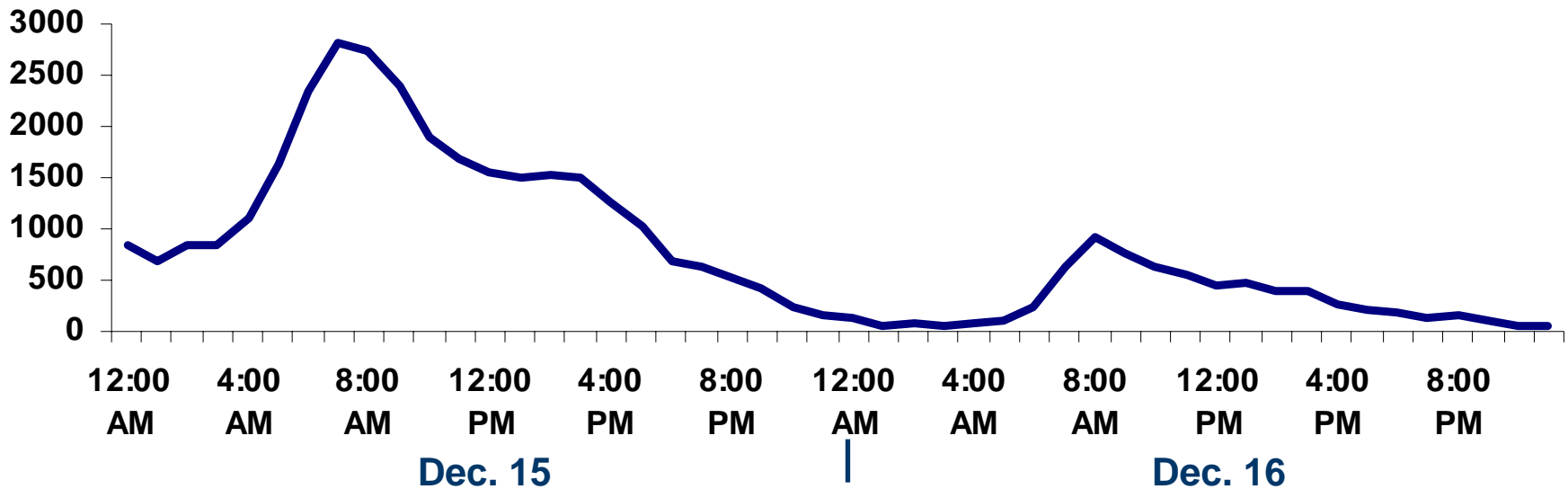
Customer communications



First 2 days: Dec. 14 and 15

- 31,894 outage calls received
- 24,492 recorded outage message
- 5,542 spoke to live agent
- 1,860 outage incidents created by customers

Call Volumes Dec. 15 - 16, 2006



Customer communication via media

- Regular updates
- Report progress as percent of customers restored
- Public safety messages
- 162 media contacts
- 109 media stories



Restoring power quickly and safely

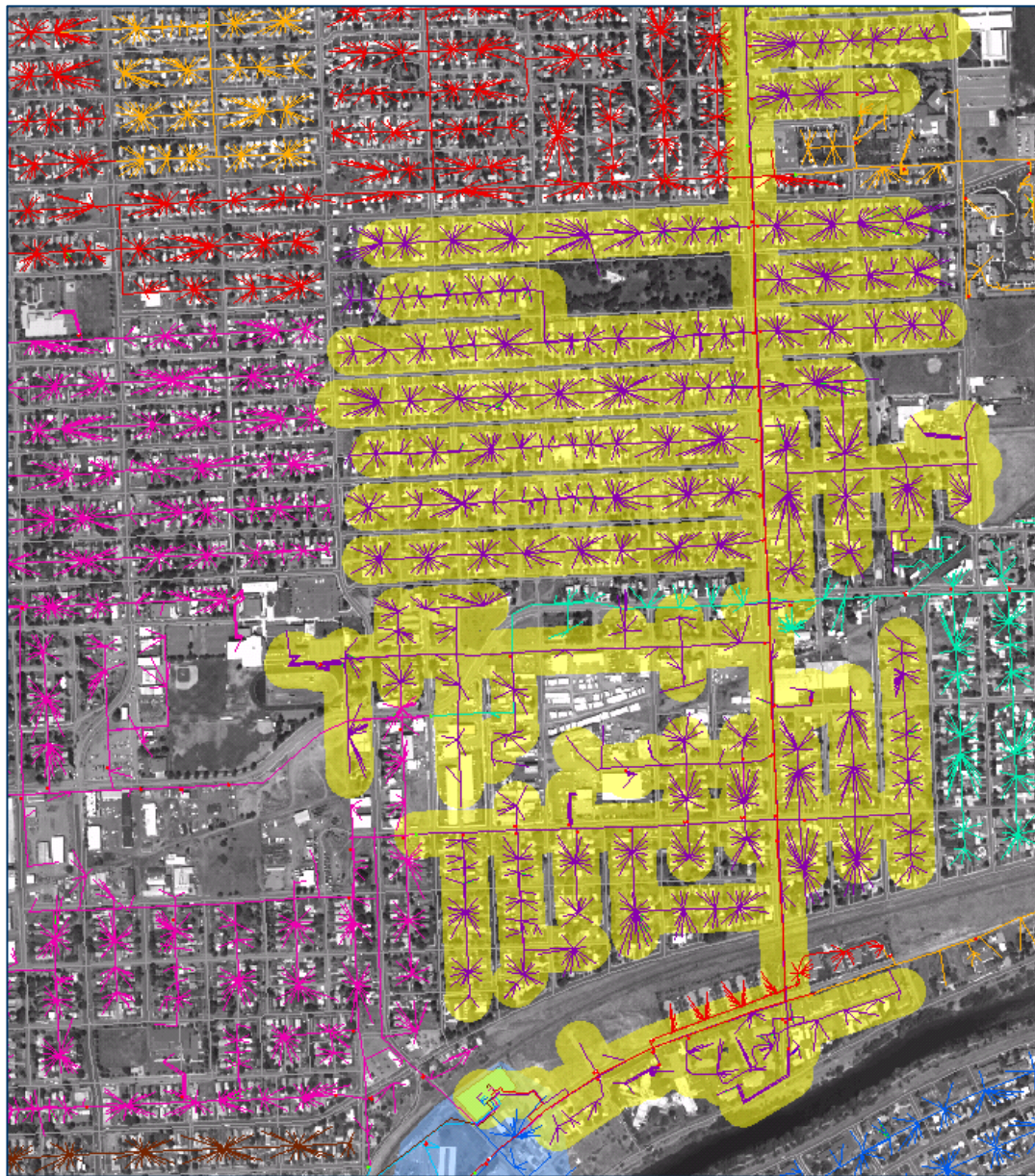
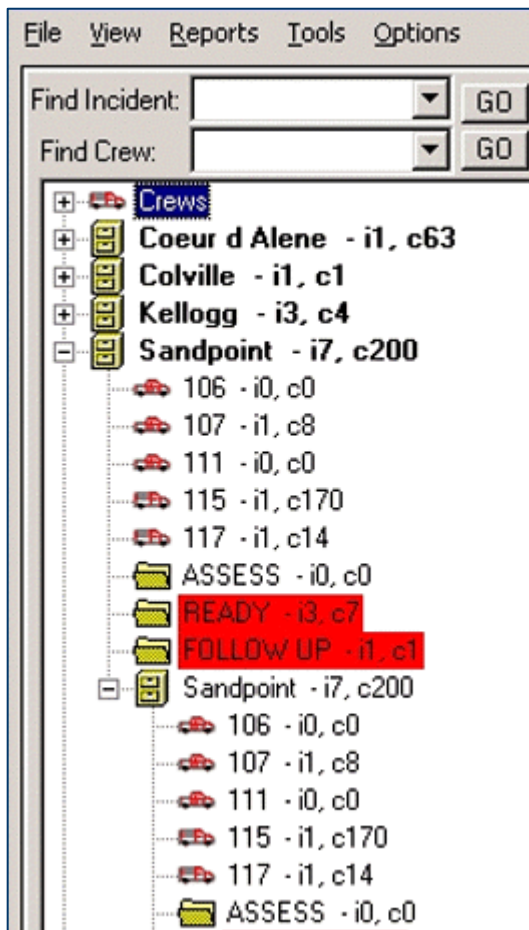


Technology is key:

- Assess the situation
- Prioritize incidents
- Organize / manage work

Incidents to action

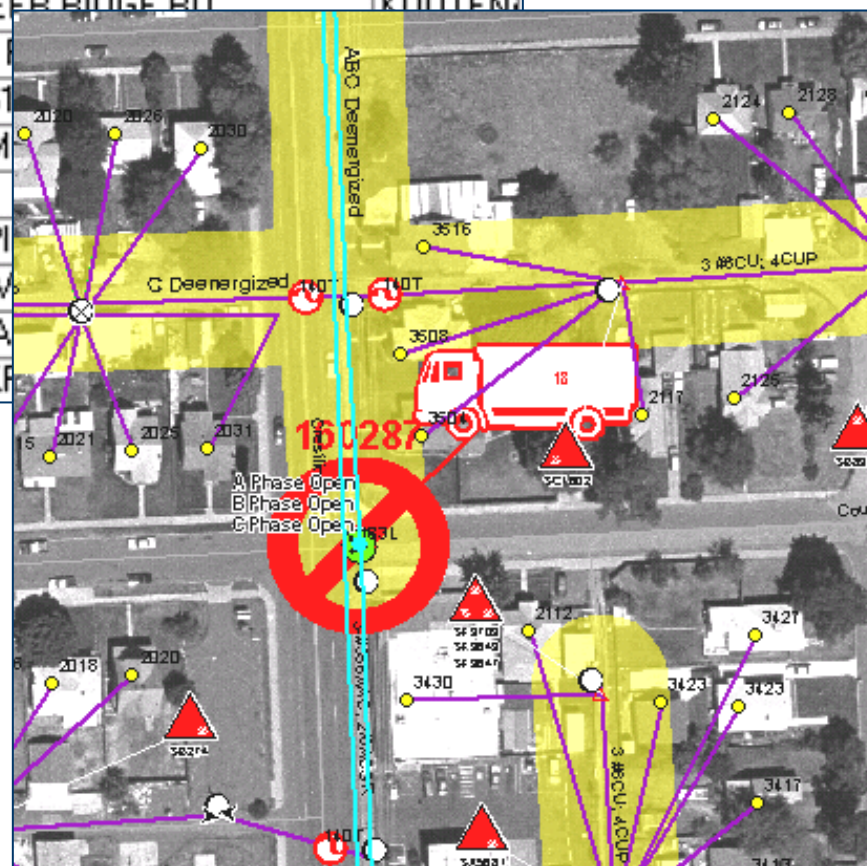
- Create incidents
- Prioritize by size



Organize and manage work

All Crew Assigned Incidents

	PEND	CREW	AI	INCIDENT	FIRE	FEEDER	DEVICE ADDRESS	CITY
▶		10		236686	N	FWT12F3	3219 W KIERNAN AVE	SPOKANE
		107		236672	N	ODN731	747 DEER RIDGE RD	KOOTENAI
		11		236680	N	MIL12F4	3011 N	
		115		236666	N	CKF711	(100 - 61	
		117		236627	N	CKF711	214 E M	
		157		236624	N	LKV343	TRLR	
		171		236676	N	PIN441	1642 PI	
		171		236681	N	PIN441	1582 W	
		178		236687	N	STM633	12988 A	
		268		236683	N	CHW12F2	2889 KR	



- Assign and mobilize crews
- Track progress
- Visibility to entire system

Customer thank you ad

- Coeur d'Alene Press
- Davenport Times
- Deer Park Tribune
- Latah Eagle
- Moscow/Pullman Daily News
- Post Falls Tribune
- Rathdrum Star
- Shoshone News-Press
- Spokesman Review
- St. Maries Gazette-Record
- Statesman-Examiner
- The Boomerang



We thank you.

Our electric system was severely damaged in the recent storms that hit the region. We know this was a difficult time for many of our customers.

Avista employees worked long and hard, in challenging conditions, to restore your power as quickly and safely as possible.

We thank you for your patience, support and kindness during the recent storm caused outages.

www.avistautilities.com **AVISTA**

Lessons learned

- **Technology passed the test**
- **Saved approx. 48 hours in restoration time**
- **Transmission upgrades improve reliability**
- **Communicate with customers**
 - Media updates
 - Automated system and call center
- **Going forward –**
 - Refine restoration time estimates
 - Enhance customer automated system

