

Agenda Date: September 10, 2009  
Item Number: A1

**Docket:** UT-063060  
**Company:** AT&T Mobility  
**Staff:** Jing Liu, Regulatory Analyst  
Bob Williamson, Utilities Engineer  
Tim Zawislak, Regulatory Analyst  
William Weinman, Assistant Director - Telecommunications

### **Recommendation**

Clarify that under Order 01, Bellingham Cellular Partnership, Bremerton Cellular Telephone Company, Hood River Cellular Telephone Company, New Cingular Wireless PCS, LLC and Olympia Cellular Telephone Company (collectively AT&T Mobility f/k/a Cingular) were not required to install additional back up power at its non-priority cell sites prior to February 15, 2009;

Deny AT&T Mobility's petition for a permanent exemption from WAC 480-123-070(6) and WAC 480-123-030(1)(g) for three priority and coverage cell sites;

Grant AT&T Mobility's petition for a temporary exemption from WAC 480-123-070(6) and WAC 480-123-030(1)(g) for the three priority and coverage cell sites for a period of one year from the effective date of this order, subject to the condition that the company must file a compliance status report upon completion of back up power upgrades or at the end of the temporary exemption, whichever occurs first; and

Grant AT&T Mobility's petition for a temporary exemption from WAC 480-123-070(6) and WAC 480-123-030(1)(g) for all non-priority cell sites until July 1, 2012, subject to the following conditions:

1. AT&T Mobility must provide four hours of back up power at all new cell sites constructed during this period;
2. AT&T Mobility must include a compliance status report on back up power upgrades in its annual ETC filing with the commission;
3. AT&T Mobility must file a final compliance report upon completion of the back up power upgrades or at the expiration of the temporary exemption, whichever occurs first.

### **Discussion**

#### **I. Background**

On March 6, 2009, Bellingham Cellular Partnership, Bremerton Cellular Telephone Company, Hood River Cellular Telephone Company, New Cingular Wireless PCS, LLC and Olympia

Cellular Telephone Company, collectively AT&T Mobility f/k/a Cingular (AT&T Mobility or company) filed a status report with the Washington Utilities and Transportation Commission (UTC or the commission) with regard to compliance to WAC 480-123-070(6) and commission Order 01 in Docket UT-063060. It reported that all but three Priority 1 and -98 decibel (db) coverage cell sites<sup>1</sup> have complied with the four hour back up power requirement under WAC 480-123-030(1)(g) and the certification requirement in WAC 480-123-070(6). It also requested either a permanent exemption or a temporary exemption from WAC 480-123-030(1)(g) and WAC 480-123-070(6) for those three priority and coverage cell sites.

On August 3, 2009, AT&T Mobility filed a request for clarification of Order 01 in this docket or in the alternative a temporary exemption for compliance with WAC 480-123-070(6) and WAC 480-123-030(1)(g) for all its non-priority cell sites until July 1, 2012.

Both the March 6, 2009, petition and the August 3, 2009, are discussed herein.

AT&T Mobility is a Commercial Mobile Radio Service provider licensed by the Federal Communications Commission (FCC). AT&T Mobility was designated by the commission as an Eligible Telecommunications Carrier (ETC) in Washington in 2004 and 2005.<sup>2</sup>

Effective July 29, 2006, the commission adopted rules on ETC-designation and annual certification. WAC 480-123-030(1)(g) requires a wireless ETC to demonstrate in its petition for ETC-designation that it has at least four hours of battery back up power at each cell site, back up generators at each microwave hub, and at least five hours back up battery power and back up generators at each switch. WAC 480-123-070(6) requires that each ETC that receives federal high cost funds to certify annually that it continues to adhere to the same standards in WAC 480-123-030(1)(g). As an ETC, AT&T Mobility is subject to the four hour back up power requirement.

On July 31, 2006, AT&T Mobility submitted a petition to the commission requesting a permanent exemption or a temporary exemption of WAC 480-123-070(6) and WAC 480-123-030(1)(g). The commission denied the company's request for a permanent exemption; but granted a temporary exemption subject to the condition that the company provide four hours of back up power at all Priority 1 and -98 db cell sites using reliable power sources including battery, fixed generator or fuel cells within two years.<sup>3</sup> The exemption expired on February 15, 2009.

## II. Analysis

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<sup>1</sup> AT&T Mobility classifies cell sites into two categories: (1) Priority 1 and -98 decibel (db) cell sites; (2) non-priority cell sites or capacity cell sites. In the Petition, the company uses the term "Backup Power Sites," which refers to Priority 1 and -98 db coverage cell sites.

<sup>2</sup> UT-043011 Order 01 (AT&T Wireless) and Order 02 (Cingular Wireless, for identical service area).

<sup>3</sup> Docket UT-063060, Order 01.

The company's March 6 and August 3 petitions present three issues. Detailed analysis and staff recommendations are as follows:

Issue 1. Clarification of Commission Order 01

In its petition filed on August 3, 2009, AT&T Mobility asked the commission to clarify that Order 01 required AT&T Mobility to engineer and install four hour back up power at all Priority 1 and -98 db coverage cell sites, but that AT&T Mobility was not required to install any additional back up power at its existing non-priority cell sites within its ETC designated area.

AT&T Mobility asserts that it met the requirement set forth in Commission Order 01 of this docket except for three priority and coverage cell sites; it did not need to upgrade the back up power for non-priority cell sites. Staff disagrees with AT&T Mobility's interpretation of Order 01 with regard to its non-priority cell sites. Staff believes that Order 01 granted a temporary exemption for AT&T Mobility's non-priority cell sites from the four hour back up power rule for a period of two years, but it was a temporary exemption, not a permanent exemption. Upon the expiration of the temporary exemption, AT&T Mobility needs to request an extension of the exemption for its non-priority cell sites if they are not in compliance with WAC 480-123-030(1)(g) and WAC 480-123-070(6).

Order 01 explicitly states that AT&T Mobility is granted a temporary exemption from the battery back up power requirement for a period of two years from the effective date of the Order subject to the condition that within two years of the date of the Order, the company must provide four hours of back up at all Priority 1 and -98 db cell sites using reliable alternative power sources (battery, fixed generation or fuel cells).<sup>4</sup>

Staff believes that in Order 01, the commission made the following determinations. First, the commission acknowledged that upgrading the battery back up power in all cell sites in a short time frame is cost prohibitive and would financially limit the company's ability to increase network coverage and capacity. Therefore the commission allowed the company to prioritize and take two years to install four hour back up power in Priority 1 and -98 db cell sites first.

The commission intended to revisit the issue about compliance of non-priority cell sites at the end of the two year period if necessary. The commission states in Order 01 that "[a]s for the balance of Cingular's noncompliant sites, the public interest is better served over the next two years by *deferring* bringing them up to the four hour standard, thereby allowing additional investment in network coverage and capacity. *We can revisit this issue at the expiration of the exemption if necessary.*"<sup>5</sup>

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<sup>4</sup> *Id.*, ¶ 31.

<sup>5</sup> *Id.*, ¶ 18, emphasis added.

The commission also acknowledged the availability of alternative sources of back up power. The commission granted a temporary exemption from the rule to allow the company to use batteries, fixed generators or fuel cells to meet the back up power requirement. The commission did not allow the use of mobile generators as an alternative source of back up power.

Therefore, staff believes that after February 15, 2009, all of AT&T Mobility's cell sites should comply with the four hour back up power rule. Now is the time to revisit the issue and discuss the costs and benefits of rule compliance for non-priority cell sites.

With regard to the timing of the request for clarification, WAC 480-07-835 provides that a party must file a motion for clarification of a final order within ten days after the order is served. AT&T Mobility did not file the motion for clarification before the statutory deadline.

Notwithstanding the procedural issue of the company's request for clarification, staff recommends the commission clarify that under Order 01, AT&T Mobility was not required to install additional back up power at its non-priority cell sites before February 15, 2009; but the exemption was not permanent. The temporary exemption expired on February 15, 2009.

## Issue 2. Temporary Exemption for Three Priority and Coverage Cell Sites

In its petition filed on March 6, 2009, AT&T Mobility described its compliance status and requested a permanent exemption or a one year temporary exemption for the three priorities and coverage cell sites that are currently not in compliance.

AT&T Mobility reported that between February 15, 2007 and March 6, 2009, the company had taken necessary steps to survey, engineer and construct all priority and coverage cell sites to achieve four hour back up power. The back up power upgrade involves various tasks such as structural analysis and modification, lease agreement amendment and installing back up power equipment. During the two year period, the company upgraded the back up power at 525 Priority 1 and -98 db cell sites to comply with the rule. Of the 576 Priority 1 and -98 db sites identified in 2006, all but three have now complied with the four hour back up power rule. The company also updated back up power at 22 additional new cell sites.

All three non-compliant cell sites already have 3.75 hours of back up power. The company encountered difficulties in installing the batteries. One is a rooftop cell site in Spokane, requiring the company to obtain a structural analysis for the location. This was necessary to determine whether additional batteries could be placed without reinforcing the structure. The company also needs to install screening of its equipment due to the requirement of the city. A similar problem exists on a rooftop cell site in Bellingham. Another cell site located in a hospital in Puyallup required the company to contact the landlord to request additional space to install a cabinet with additional back up power. The company could not get the landlord's permission to install an additional battery cabinet. AT&T Mobility commits to continue to work out a solution for the three cell sites.

Staff supports the company's request for a temporary exemption of the rule to allow more time to resolve the structural analysis, equipment screening and lease agreement issues. Staff believes that it is in the public interest for all priority and coverage cell sites to have four hours of back up power. It is reasonable to grant a temporary exemption because the company has exerted its best efforts to remedy those sites. Staff recommends the commission place the following condition on the temporary exemption:

1. The company must file a compliance status report upon completion of back up power upgrades or at the end of the temporary exemption, whichever occurs first.

### Issue 3. Extended Exemption for Non-Priority Cell Sites

On August 3, 2009, AT&T Mobility requested a temporary exemption from WAC 480-123-070(6) and WAC 480-123-030(1)(g) for its non-priority cell sites until July 1, 2012 if the Commission declines to adopt AT&T Mobility's interpretation of Order 01. After reviewing the petition and discussion with the company's engineers, staff agrees that the benefit of an immediate enforcement of back up power rule at non-priority cell sites is outweighed by its costs. Staff supports the company's request for a temporary exemption.

Staff considers the added benefit of four hours of back up power at all capacity cell sites. AT&T Mobility states in the petition that the service areas of the non-priority cell sites are sufficiently overlapped by the priority and coverage cell sites nearby. AT&T Mobility further explained that roughly 98 percent of the points of presence of the non-priority cell sites are covered by the adjacent coverage cell sites, of which all but three have four hour back up power capacity. When a power outage occurs, if a non-priority cell site stops functioning, customers will be able to receive service from adjacent priority and coverage cell sites throughout AT&T Mobility's ETC designated area in Washington. Although increasing the back up power capacity at non-priority cell sites will reduce the possibility of network congestion in power outage related emergencies, it will not necessarily prolong the hours of back up power available to the customers.

AT&T Mobility confirms that since July 29, 2006, the effective date of WAC 480-123-030(1)(g) and WAC 480-123-070(6), all its new cell sites within the ETC designated area in Washington have been engineered for four hour back up using reliable power sources including batteries, permanent generators or some combination thereof. The company reports that before the implementation of the Washington rule, the company's policy was to provide at least two hours of back up power at all its cell sites.

Staff inquired about the percentage of outages lasting two to four hours from three major power companies in Washington. The companies report that only 22 to 24 percent of the outages last two to four hours. AT&T Mobility also reports that only a small number of power related outages at their cell sites last between two and four hours. Moreover, the company's initial petition for exemption filed on July 8, 2006, stated that most unplanned outages are not driven by

lack of power, but instead are due to problems related to infrastructure the wireless carrier leases from the landline carrier (e.g., T1 connection between the cell site and the switch) or equipment failure at the cell site or the switch.<sup>6</sup>

There are other mitigating factors in emergency situations. AT&T Mobility states that the company has a comprehensive emergency response plan in place. In addition, the company has a number of portable generators that can be moved to most cell sites when outage occurs. It also has several “Cells on Wheels”, which are portable cell sites that can be deployed on a temporary basis. While these measures are not substitutes for on site four hour back up power, staff believes they mitigate and may prevent the negative impacts of potential failure of cell sites due to the lack of four hour back up power.

Upgrading the back up power is costly. The company will incur substantial costs in order to augment the back up power capacity at all non-priority cell sites. Staff also considers the projected federal universal service fund available for the company and its alternative use. The company does not expect any major increase in its federal high cost support due to the cap the FCC recently imposed on competitive ETC’s receipt of federal high cost fund in a state.<sup>7</sup>

Staff believes that the public interest can be better served for the company to spend the federal universal service subsidy on increasing network coverage and capacity rather than on upgrading back up power at non-priority cell sites in a short period of time. Although there are some benefits for all capacity cell sites to have four hour back up power, such benefits are marginal compared to alternative uses of the universal service fund.

Granting a temporary exemption for AT&TMobility’s non-priority cell sites does not compromise the policy objective for ETCs’ emergency readiness. While the company does not fully comply with the Washington state rule, it meets the federal guideline that ETCs should have the ability to remain reasonably functional in emergency situations. Staff believes that the coverage provided by the Priority 1 and coverage cell sites in combination with the portable emergency response equipment reduces the risks for non-priority cell sites that have less than four hour back up power. A balanced consideration of costs and benefits justifies a temporary exemption.

Based on the above rationale, staff recommends the commission grant a temporary exemption from the four hour back up power rule for AT&T Mobility’s non-priority cell sites until July 1, 2012, subject to the following conditions:

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<sup>6</sup> *Cingular’s Request for Permanent Waiver or in the Alternate a Temporary Waiver of WAC 480-123-070 (6) regarding Eligible Telecommunications Carrier Requirements*, Docket UT-063060 (July 31, 2006), pp. 2-3.

<sup>7</sup> *In the Matter of High-Cost Universal Service Support, et al.* Order, WC Docket No.05-337 and CC Docket No.96-45, FCC 08-122 (Released May 1, 2008).

1. The company must provide four hours of back up power at all new cell sites constructed during this period;
2. The company must include a compliance status report on back up power upgrades in its annual ETC filing with the commission;
3. The company must file a final compliance report upon completion of the back up power upgrades or at the expiration of the temporary exemption, whichever occurs first.

Staff recommends that the commission initiate a rule making to revisit the language of WAC 480-123-030(1)(g). The rule making would give all stake holders an opportunity to comment on two issues:

1. Given the overlapping signal coverage provided by multiple cell sites, whether it is appropriate to require the ETCs to provide four hours of back up power throughout its designated area but not necessarily at each cell site;
2. Whether the rule should be revised to explicitly allow the use of alternative back up power technologies other than battery.

### **Conclusion**

Staff recommends the commission clarify that under Order 01, AT&T Mobility was not required to install additional back up power at its non-priority cell sites before February 15; however, the exemption was temporary not permanent.

Staff recommends the commission grant AT&T Mobility a temporary exemption for the three priority and coverage cell sites from the four hour back up power in WAC 480-123-030(1)(g) and WAC 480-123-070(6) for a period of one year from the effective date of this Order. The company will file a compliance status report on the power upgrade of the three identified cell sites upon the completion of full compliance or at the end of the one year temporary exemption, whichever occurs first.

Staff recommends that the commission grant AT&T Mobility a temporary exemption for all non-priority cell sites from the four hour back up power rule in WAC 480-123-030(1)(g) and WAC 480-123-070(6) until July 1, 2012. The company must use reliable power sources (battery, fixed generator or fuel cells) to meet the four hour back up power standard. This recommendation is subject to the following conditions:

1. The company must provide four hours of back up power at all new cell sites constructed during this period;

2. The company must include a compliance status report on back up power upgrades in its annual ETC filing with the commission;
3. The company must file a final compliance report upon completion of the back up power upgrades or at the expiration of the temporary exemption, whichever occurs first.